FIGURE 1

Amino acid sequence for full length human wild type EPHA2 ~~[SEQ. ID No. 1]~~[SEQ ID NO: 1]

(Residues 596-900 are underlined)

MELQAARACFALLWGCALAAAAAAQGKEVVLLDFAAAGGELGWLTHPYGK	50
GWDLMQNIMNDMPIYMYSVCNVMSGDQDNWLRTNWVYRGEAERNNFELNF	100
TVRDCNSFPGGASSCKETFNLYYAESDLDYGTNFQKRLFTKIDTIAPDEI	150
TVSSDFEARHVKLNVEERSVGPLTRKGFYLAFQDIGACVALLSVRVYYKK	200
CPELLQGLAHFPETIAGSDAPSLATVAGTCVDHAVVPPGGEEPRMHCAVD	250
GEWLVPIGQCLCQAGYEKVEDACQACSPGFFKFEASESPCLECPEHTLPS	300
PEGATSCECEEGFFRAPQDPASMPCTRPPSAPHYLTAVGMGAKVELRWTP	350
PQDSGGREDIVYSVTCEQCWPESGECGPCEASVRYSEPPHGLTRTSVTVS	400
DLEPHMNYTFTVEARNGVSGLVTSRSFRTASVSINQTEPPKVRLEGRSTT	450
SLSVSWSIPPPQQSRVWKYEVTYRKKGDSNSYNVRRTEGFSVTLDDLAPD	500
TTYLVQVQALTQEGQGAGSKVHEFQTLSPEGSGNLAVIGGVAVGVVLLLV	550
LAGVGFFIHRRRKNQRARQSPEDVYFSKSEQLKPLKTYVDPHTYEDPNQA	600
VLKFTTEIHPSCVTRQKVIGAGEFGEVYKGMLKTSSGKKEVPVAIKTLKA	650
GYTEKQRVDFLGEAGIMGQFSHHNIIRLEGVISKYKPMMIITEYMENGAL	700
DKFLREKDGEFSVLQLVGMLRGIAAGMKYLANMNYVHRDLAARNILVNSN	750
LVCKVSDFGLSRVLEDDPEATYTTSGGKIPIRWTAPEAISYRKFTSASDV	800
WSFGIVMWEVMTYGERPYWELSNHEVMKAINDGFRLPTPMDCPSAIYQLM	850
MQCWQQERARRPKFADIVSILDKLIRAPDSLKTLADFDPRVSIRLPSTSG	900
SEGVPFRTVSEWLESIKMQQYTEHFMAAGYTAIEKVVQMTNDDIKRIGVR	950
LPGHQKRIAYSLLGLKDQVNTVGIPI	976

FIGURE 1A ~~(Cont.)~~

Human cDNA sequence encoding residues 596-900 of EPHA2 ~~[SEQ. ID No. 2]~~ [SEQ ID NO: 2]

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GACCCCAACCAGGCTGTGTTGAAGTTCACTACCGAGATCCATCCATCCTG      50
TGTCACTCGGCAGAAGGTGATCGGAGCAGGAGAGTTTGGGGAGGTGTACA     100
AGGGCATGCTGAAGACATCCTCGGGGAAGAAGGAGGTGCCGGTGGCCATC     150
AAGACGCTGAAAGCCGGCTACACAGAGAAGCAGCGAGTGGACTTCCTCGG     200
CGAGGCCGGCATCATGGGCCAGTTCAGCCACCACAACATCATCCGCCTAG     250
AGGGCGTCATCTCCAAATACAAGCCCATGATGATCATCACTGAGTACATG     300
GAGAATGGGGCCCTGGACAAGTTCCTTCGGGAGAAGGATGGCGAGTTCAG     350
CGTGCTGCAGCTGGTGGGCATGCTGCGGGGCATCGCAGCTGGCATGAAGT     400
ACCTGGCCAACATGAACTATGTGCACCGTGACCTGGCTGCCCGCAACATC     450
CTCGTCAACAGCAACCTGGTCTGCAAGGTGTCTGACTTTGGCCTGTCCCG     500
CGTGCTGGAGGACGACCCCGAGGCCACCTACACCACCAGTGGCGGCAAGA     550
TCCCCATCCGCTGGACCGCCCCGGAGGCCATTTCCTACCGGAAGTTCACC     600
TCTGCCAGCGACGTGTGGAGCTTTGGCATTGTCATGTGGGAGGTGATGAC     650
CTATGGCGAGCGGCCCTACTGGGAGTTGTCCAACCACGAGGTGATGAAAG     700
CCATCAATGATGGCTTCCGGCTCCCCACACCCATGGACTGCCCCTCCGCC     750
ATCTACCAGCTCATGATGCAGTGCTGGCAGCAGGAGCGTGCCCGCCGCCC     800
CAAGTTCGCTGACATCGTCAGCATCCTGGACAAGCTCATTCGTGCCCCTG     850
ACTCCCTCAAGACCCTGGCTGACTTTGACCCCCGCGTGTCTATCCGGCTC     900
CCCAGCACGAGCGGC                                        915
```

Amino acid sequence for residues 596-900 of EPHA2 with a cleavable (rTev) N-terminal 6x-histidine tag ~~[SEQ. ID No. 3]~~ [SEQ ID NO: 3]
(6x-histidine tag and cleavage site are underlined)

```
MSYYHHHHHHDYDIPTTENLYFQGAMGSDPNQAVLKFTTEIHPSCVTRQK      50
VIGAGEFGEVYKGMLKTSSGKKEVPVAIKTLKAGYTEKQRVDFLGEAGIM     100
GQFSHHNIIRLEGVISKYKPMMIITEYMENGALDKFLREKDGEFSVLQLV     150
GMLRGIAAGMKYLANMNYVHRDLAARNILVNSNLVCKVSDFGLSRVLEDD     200
PEATYTTSGGKIPIRWTAPEAISYRKFTSASDVWSFGIVMWEVMTYGERP     250
YWELSNHEVMKAINDGFRLPTPMDCPSAIYQLMMQCWQQERARRPKFADI     300
VSILDKLIRAPDSLKTLADFDPRVSIRLPSTSG                      333
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FIGURE 3A

LEGEND

Column headings from left to right are (A)'Atom Number', (B)'Atom Type', (C)'Amino Acid', (D)'Chain Identifier', (E)'Amino Acid Number' (SEQ ID NO: 1), (F)'X Coordinate', (G)'Y Coordinate', (H)'Z Coordinate', (I)'Occupancy' (OCC) and (J)'B factor'.

A	B	C	D	E	F	G	H	I	J
1	N	ALA	A	605	47.239	45.529	67.448	1.00	51.83
2	CA	ALA	A	605	46.929	45.860	66.049	1.00	52.40
3	CB	ALA	A	605	45.751	44.876	65.490	1.00	51.40
4	C	ALA	A	605	46.433	47.259	66.307	1.00	51.78
5	O	ALA	A	605	46.252	47.630	67.422	1.00	52.61
6	N	THR	A	606	46.218	48.048	65.302	1.00	51.19
7	CA	THR	A	606	45.719	49.337	65.564	1.00	49.98
8	CB	THR	A	606	46.128	50.120	64.454	1.00	48.98
9	OG1	THR	A	606	47.553	50.041	64.401	1.00	50.88
10	CG2	THR	A	606	45.766	51.541	64.651	1.00	48.25
11	C	THR	A	606	44.201	49.397	65.650	1.00	50.57
12	O	THR	A	606	43.487	48.868	64.787	1.00	51.60
13	N	GLU	A	607	43.680	50.086	66.646	1.00	49.68
14	CA	GLU	A	607	42.264	50.182	66.717	1.00	47.97
15	CB	GLU	A	607	41.796	50.123	68.130	1.00	47.41
16	CG	GLU	A	607	40.323	50.414	68.279	1.00	50.07
17	CD	GLU	A	607	39.394	49.230	68.074	1.00	39.82
18	OE1	GLU	A	607	39.796	48.072	68.195	1.00	38.52
19	OE2	GLU	A	607	38.260	49.515	67.856	1.00	41.61
20	C	GLU	A	607	41.841	51.347	65.971	1.00	48.16
21	O	GLU	A	607	42.392	52.398	66.162	1.00	48.74
22	N	ILE	A	608	40.955	51.146	64.963	1.00	50.14
23	CA	ILE	A	608	40.531	52.309	64.228	1.00	49.42
24	CB	ILE	A	608	41.128	52.517	62.742	1.00	51.19
25	CG1	ILE	A	608	40.066	52.886	61.752	1.00	49.45
26	CD1	ILE	A	608	39.259	51.726	61.615	1.00	60.72
27	CG2	ILE	A	608	42.168	51.494	62.300	1.00	47.67
28	C	ILE	A	608	39.135	52.787	64.481	1.00	51.43
29	O	ILE	A	608	38.254	52.049	64.879	1.00	51.22
30	N	HIS	A	609	38.983	54.090	64.361	1.00	53.40
31	CA	HIS	A	609	37.727	54.745	64.674	1.00	55.30
32	CB	HIS	A	609	37.938	56.203	65.196	1.00	57.26
33	CG	HIS	A	609	36.715	56.776	65.835	1.00	60.02
34	ND1	HIS	A	609	36.486	56.686	67.186	1.00	62.57
35	CE1	HIS	A	609	35.313	57.221	67.471	1.00	62.48
36	NE2	HIS	A	609	34.764	57.635	66.348	1.00	63.53
37	CD2	HIS	A	609	35.606	57.345	65.301	1.00	62.09
38	C	HIS	A	609	36.701	54.718	63.557	1.00	53.34
39	O	HIS	A	609	36.943	55.109	62.474	1.00	55.03
40	N	PRO	A	610	35.517	54.263	63.854	1.00	52.90
41	CA	PRO	A	610	34.533	54.113	62.805	1.00	53.20
42	CB	PRO	A	610	33.246	53.864	63.591	1.00	52.67
43	CG	PRO	A	610	33.753	53.087	64.713	1.00	50.94

FIGURE 3A ~~(Cont.)~~

A	B	C	D	E	F	G	H	I	J
44	CD	PRO	A	610	35.069	53.682	65.133	1.00	52.08
45	C	PRO	A	610	34.421	55.273	61.903	1.00	52.69
46	O	PRO	A	610	33.935	55.146	60.793	1.00	55.21
47	N	SER	A	611	34.789	56.418	62.391	1.00	52.17
48	CA	SER	A	611	34.546	57.584	61.639	1.00	52.33
49	CB	SER	A	611	34.694	58.833	62.562	1.00	54.93
50	OG	SER	A	611	35.822	58.723	63.443	1.00	49.81
51	C	SER	A	611	35.579	57.611	60.552	1.00	52.77
52	O	SER	A	611	35.394	58.256	59.545	1.00	54.01
53	N	CYS	A	612	36.679	56.915	60.701	1.00	49.87
54	CA	CYS	A	612	37.633	57.083	59.642	1.00	51.06
55	CB	CYS	A	612	39.044	56.889	60.169	1.00	50.65
56	SG	CYS	A	612	39.193	57.805	61.702	1.00	55.75
57	C	CYS	A	612	37.445	56.214	58.426	1.00	49.07
58	O	CYS	A	612	38.215	56.286	57.479	1.00	48.12
59	N	VAL	A	613	36.470	55.349	58.497	1.00	49.20
60	CA	VAL	A	613	36.329	54.361	57.471	1.00	48.42
61	CB	VAL	A	613	36.130	52.976	58.087	1.00	49.58
62	CG1	VAL	A	613	35.493	52.026	57.030	1.00	46.32
63	CG2	VAL	A	613	37.477	52.423	58.651	1.00	46.61
64	C	VAL	A	613	35.039	54.652	56.779	1.00	47.49
65	O	VAL	A	613	34.080	55.078	57.401	1.00	46.54
66	N	THR	A	614	34.976	54.426	55.496	1.00	46.87
67	CA	THR	A	614	33.674	54.449	54.961	1.00	47.76
68	CB	THR	A	614	33.230	55.839	54.547	1.00	48.10
69	OG1	THR	A	614	32.501	55.759	53.312	1.00	53.74
70	CG2	THR	A	614	34.430	56.804	54.383	1.00	48.56
71	C	THR	A	614	33.479	53.362	53.956	1.00	47.36
72	O	THR	A	614	34.145	53.317	52.971	1.00	49.44
73	N	ARG	A	615	32.519	52.496	54.192	1.00	46.37
74	CA	ARG	A	615	32.356	51.360	53.352	1.00	44.80
75	CB	ARG	A	615	31.323	50.464	53.993	1.00	43.89
76	CG	ARG	A	615	31.817	49.366	54.921	1.00	44.82
77	CD	ARG	A	615	30.699	48.434	55.297	1.00	45.58
78	NE	ARG	A	615	29.827	49.226	56.142	1.00	49.04
79	CZ	ARG	A	615	29.151	48.769	57.151	1.00	51.81
80	NH1	ARG	A	615	29.164	47.437	57.427	1.00	50.76
81	NH2	ARG	A	615	28.473	49.652	57.883	1.00	51.85
82	C	ARG	A	615	31.694	51.886	52.150	1.00	45.54
83	O	ARG	A	615	30.737	52.603	52.357	1.00	47.25
84	N	GLN	A	616	32.035	51.399	50.944	1.00	45.88
85	CA	GLN	A	616	31.366	51.824	49.681	1.00	46.97
86	CB	GLN	A	616	32.323	52.657	48.734	1.00	47.24
87	CG	GLN	A	616	33.258	53.608	49.475	1.00	49.82
88	CD	GLN	A	616	34.200	54.437	48.588	1.00	55.54
89	OE1	GLN	A	616	35.203	53.909	48.073	1.00	56.72
90	NE2	GLN	A	616	33.889	55.770	48.428	1.00	56.51
91	C	GLN	A	616	30.597	50.752	48.848	1.00	46.63
92	O	GLN	A	616	29.448	50.970	48.361	1.00	48.68
93	N	LYS	A	617	31.167	49.598	48.678	1.00	44.77
94	CA	LYS	A	617	30.497	48.628	47.857	1.00	44.21
95	CB	LYS	A	617	30.835	48.787	46.331	1.00	44.70

FIGURE 3BA ~~(Cont.)~~

A	B	C	D	E	F	G	H	I	J
96	CG	LYS	A	617	32.399	48.959	45.944	1.00	48.09
97	CD	LYS	A	617	32.768	48.759	44.391	1.00	58.41
98	CE	LYS	A	617	34.285	49.300	44.085	1.00	60.72
99	NZ	LYS	A	617	35.073	48.944	42.813	1.00	59.09
100	C	LYS	A	617	31.019	47.331	48.370	1.00	43.38
101	O	LYS	A	617	32.139	47.297	48.834	1.00	42.92
102	N	VAL	A	618	30.126	46.333	48.379	1.00	42.86
103	CA	VAL	A	618	30.376	44.945	48.657	1.00	41.23
104	CB	VAL	A	618	29.070	44.146	48.522	1.00	39.95
105	CG1	VAL	A	618	29.426	42.622	48.582	1.00	40.13
106	CG2	VAL	A	618	28.147	44.503	49.610	1.00	42.60
107	C	VAL	A	618	31.203	44.381	47.543	1.00	40.46
108	O	VAL	A	618	30.854	44.667	46.392	1.00	42.70
109	N	ILE	A	619	32.237	43.567	47.809	1.00	37.69
110	CA	ILE	A	619	33.059	43.022	46.731	1.00	33.98
111	CB	ILE	A	619	34.521	43.786	46.495	1.00	36.65
112	CG1	ILE	A	619	35.584	43.320	47.540	1.00	31.94
113	CD1	ILE	A	619	36.383	44.380	48.493	1.00	29.73
114	CG2	ILE	A	619	34.380	45.336	46.302	1.00	31.41
115	C	ILE	A	619	33.357	41.588	46.995	1.00	33.91
116	O	ILE	A	619	34.185	41.024	46.280	1.00	35.83
117	N	GLY	A	620	32.752	40.970	47.989	1.00	32.82
118	CA	GLY	A	620	33.039	39.577	48.271	1.00	32.89
119	C	GLY	A	620	32.373	39.194	49.553	1.00	32.89
120	O	GLY	A	620	31.714	39.949	50.177	1.00	30.70
121	N	ALA	A	621	32.511	37.954	49.897	1.00	34.15
122	CA	ALA	A	621	31.818	37.384	51.019	1.00	35.78
123	CB	ALA	A	621	30.777	36.453	50.533	1.00	35.84
124	C	ALA	A	621	32.833	36.551	51.687	1.00	37.56
125	O	ALA	A	621	33.491	35.782	51.007	1.00	39.38
126	N	GLY	A	622	33.026	36.691	52.986	1.00	38.91
127	CA	GLY	A	622	34.006	35.848	53.611	1.00	38.65
128	C	GLY	A	622	33.398	34.928	54.575	1.00	39.55
129	O	GLY	A	622	32.173	34.902	54.796	1.00	36.11
130	N	GLU	A	623	34.293	34.225	55.272	1.00	41.01
131	CA	GLU	A	623	33.843	33.363	56.342	1.00	41.61
132	CB	GLU	A	623	35.046	32.793	57.068	1.00	43.27
133	CG	GLU	A	623	34.682	31.885	58.223	1.00	50.78
134	CD	GLU	A	623	35.838	31.063	58.780	1.00	65.56
135	OE1	GLU	A	623	36.962	31.030	58.200	1.00	64.79
136	OE2	GLU	A	623	35.592	30.422	59.836	1.00	72.34
137	C	GLU	A	623	32.965	34.088	57.417	1.00	40.39
138	O	GLU	A	623	32.055	33.457	57.987	1.00	38.12
139	N	PHE	A	624	33.265	35.347	57.758	1.00	37.75
140	CA	PHE	A	624	32.522	35.965	58.889	1.00	36.41
141	CB	PHE	A	624	33.506	36.538	59.933	1.00	37.60
142	CG	PHE	A	624	34.593	35.546	60.354	1.00	34.22
143	CD1	PHE	A	624	34.285	34.584	61.169	1.00	32.75
144	CE1	PHE	A	624	35.256	33.643	61.527	1.00	42.16
145	CZ	PHE	A	624	36.568	33.666	61.022	1.00	37.78
146	CE2	PHE	A	624	36.866	34.594	60.168	1.00	37.66
147	CD2	PHE	A	624	35.861	35.571	59.805	1.00	37.30

~~FIGURE 3B~~

FIGURE 3AP

~~LEGEND~~

~~Column headings from left to right are (A)'Atom Number', (B)'Atom Type', (C)'Amino Acid', (D)'Chain Identifier', (E)'Amino Acid Number', (F)'X Coordinate', (G)'Y Coordinate', (H)'Z Coordinate', (I)'Occupancy' (OCC) and (J)'B factor'.~~

A	B	C	D	E	F	G	H	I	J
2057	N	ALA	B	602	61.588	-1.705	97.096	1.00	75.62
2058	CA	ALA	B	602	61.031	-2.970	96.546	1.00	76.68
2059	CB	ALA	B	602	61.665	-3.292	95.199	1.00	76.47
2060	C	ALA	B	602	61.337	-4.080	97.519	1.00	77.44
2061	O	ALA	B	602	61.332	-5.311	97.156	1.00	75.75
2062	N	LYS	B	603	61.635	-3.605	98.744	1.00	77.75
2063	CA	LYS	B	603	62.173	-4.417	99.861	1.00	77.56
2064	CB	LYS	B	603	63.425	-3.748	100.411	1.00	78.96
2065	CG	LYS	B	603	63.212	-2.282	100.938	1.00	78.12
2066	CD	LYS	B	603	62.779	-2.211	102.422	1.00	78.99
2067	CE	LYS	B	603	63.952	-2.034	103.426	1.00	79.93
2068	NZ	LYS	B	603	64.536	-0.656	103.573	1.00	79.82
2069	C	LYS	B	603	61.103	-4.418	100.921	1.00	76.81
2070	O	LYS	B	603	61.315	-4.798	102.072	1.00	75.16
2071	N	PHE	B	604	59.938	-3.975	100.457	1.00	76.03
2072	CA	PHE	B	604	58.711	-3.929	101.207	1.00	74.92
2073	CB	PHE	B	604	58.102	-2.575	100.991	1.00	76.05
2074	CG	PHE	B	604	58.700	-1.538	101.857	1.00	78.39
2075	CD1	PHE	B	604	58.564	-1.631	103.231	1.00	79.39
2076	CE1	PHE	B	604	59.115	-0.671	104.059	1.00	84.10
2077	CZ	PHE	B	604	59.854	0.395	103.511	1.00	81.74
2078	CE2	PHE	B	604	60.017	0.474	102.144	1.00	82.47
2079	CD2	PHE	B	604	59.448	-0.503	101.312	1.00	81.05
2080	C	PHE	B	604	57.783	-5.006	100.707	1.00	73.54
2081	O	PHE	B	604	56.553	-4.941	100.826	1.00	73.46
2082	N	THR	B	605	58.368	-6.069	100.190	1.00	71.71
2083	CA	THR	B	605	57.496	-7.068	99.640	1.00	68.96
2084	CB	THR	B	605	57.540	-6.922	98.163	1.00	68.75
2085	OG1	THR	B	605	57.203	-8.191	97.632	1.00	71.34
2086	CG2	THR	B	605	58.991	-6.774	97.722	1.00	71.15
2087	C	THR	B	605	57.874	-8.494	99.969	1.00	65.74
2088	O	THR	B	605	59.000	-8.868	99.864	1.00	66.65
2089	N	THR	B	606	56.897	-9.294	100.339	1.00	61.47
2090	CA	THR	B	606	57.083	-10.702	100.542	1.00	56.89
2091	CB	THR	B	606	55.818	-11.150	101.234	1.00	58.04
2092	OG1	THR	B	606	55.636	-10.407	102.470	1.00	53.91
2093	CG2	THR	B	606	55.854	-12.662	101.579	1.00	56.07
2094	C	THR	B	606	57.153	-11.402	99.182	1.00	55.32
2095	O	THR	B	606	56.376	-11.139	98.285	1.00	55.18
2096	N	GLU	B	607	58.053	-12.330	99.008	1.00	52.87
2097	CA	GLU	B	607	58.113	-13.077	97.771	1.00	48.83
2098	CB	GLU	B	607	59.550	-13.585	97.546	1.00	50.19
2099	CG	GLU	B	607	59.720	-14.650	96.488	1.00	49.52
2100	CD	GLU	B	607	59.828	-14.069	95.132	1.00	53.13

FIGURE 1

Amino acid sequence for full length human wild type EPHA2 [SEQ ID NO: 1]

(Residues 596-900 are underlined)

MELQAARACFALLWGCALAAAAAAQGKEVVLLDFAAAGGELGWLTHPYGK 50
GWDLMQNIMNDMPIYMYSVCNVMSGDQDNWLRTNWVYRGEAERNNFELNF 100
TVRDCNSFPGGASSCKETFNLYYAESDLDYGTNFQKRLFTKIDTIAPDEI 150
TVSSDFEARHVKLNVEERSVGPLTRKGFYLAFQDIGACVALLSVRVYYKK 200
CPELLQGLAHFPETIAGSDAPSLATVAGTCVDHAVVPPGGEEPRMHCAVD 250
GEWLVPIGQCLCQAGYEKVEDACQACSPGFFKFEASESPCLECPEHTLPS 300
PEGATSCECEEGFFRAPQDPASMPCTRPPSAPHYLTAVGMGAKVELRWTP 350
PQDSGGREDIVYSVTCEQCWPESGECGPCEASVRYSEPPHGLTRTSVTVS 400
DLEPHMNYTFTVEARNGVSGLVTSRSFRTASVSINQTEPPKVRLEGRSTT 450
SLSVSWSIPPPQQSRVWKYEVTYRKKGDSNSYNVRRTEGFSVTLDDLAPD 500
TTYLVQVQALTQEGQGAGSKVHEFQTLSPEGSGNLAVIGGVAVGVVLLLV 550
LAGVGFFIHRRRKNQRARQSPEDVYFSKSEQLKPLKTYVDPHTYEDPNQA 600
VLKFTTEIHPSCVTRQKVIGAGEFGEVYKGMLKTSSGKKEVPVAIKTLKA 650
GYTEKQRVDFLGEAGIMGQFSHHNIIRLEGVISKYKPMMIITEYMENGAL 700
DKFLREKDGEFSVLQLVGMLRGIAAGMKYLANMNYVHRDLAARNILVNSN 750
LVCKVSDFGLSRVLEDDPEATYTTSGGKIPIRWTAPEAISYRKFTSASDV 800
WSFGIVMWEVMTYGERPYWELSNHEVMKAINDGFRLPTPMDCPSAIYQLM 850
MQCWQQERARRPKFADIVSILDKLIRAPDSLKTLADFDPRVSIRLPSTSG 900
SEGVPFRTVSEWLESIKMQQYTEHFMAAGYTAIEKVVQMTNDDIKRIGVR 950
LPGHQKRIAYSLLGLKDQVNTVGIPI 976

FIGURE 1A

Human cDNA sequence encoding residues 596-900 of EPHA2 [SEQ ID NO: 2]

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GACCCCAACCAGGCTGTGTTGAAGTTCACTACCGAGATCCATCCATCCTG      50
TGTCACTCGGCAGAAGGTGATCGGAGCAGGAGAGTTTGGGGAGGTGTACA     100
AGGGCATGCTGAAGACATCCTCGGGGAAGAAGGAGGTGCCGGTGGCCATC     150
AAGACGCTGAAAGCCGGCTACACAGAGAAGCAGCGAGTGGACTTCCTCGG     200
CGAGGCCGGCATCATGGGCCAGTTCAGCCACCACAACATCATCCGCCTAG     250
AGGGCGTCATCTCCAAATACAAGCCCATGATGATCATCACTGAGTACATG     300
GAGAATGGGGCCCTGGACAAGTTCCTTCGGGAGAAGGATGGCGAGTTCAG     350
CGTGCTGCAGCTGGTGGGCATGCTGCGGGGCATCGCAGCTGGCATGAAGT     400
ACCTGGCCAACATGAACTATGTGCACCGTGACCTGGCTGCCCGCAACATC     450
CTCGTCAACAGCAACCTGGTCTGCAAGGTGTCTGACTTTGGCCTGTCCCG     500
CGTGCTGGAGGACGACCCCGAGGCCACCTACACCACCAGTGGCGGCAAGA     550
TCCCCATCCGCTGGACCGCCCCGGAGGCCATTTCCTACCGGAAGTTCACC     600
TCTGCCAGCGACGTGTGGAGCTTTGGCATTGTCATGTGGGAGGTGATGAC     650
CTATGGCGAGCGGCCCTACTGGGAGTTGTCCAACCACGAGGTGATGAAAG     700
CCATCAATGATGGCTTCCGGCTCCCCACACCCATGGACTGCCCCTCCGCC     750
ATCTACCAGCTCATGATGCAGTGCTGGCAGCAGGAGCGTGCCCGCCGCCC     800
CAAGTTCGCTGACATCGTCAGCATCCTGGACAAGCTCATTCGTGCCCCTG     850
ACTCCCTCAAGACCCTGGCTGACTTTGACCCCCGCGTGTCTATCCGGCTC     900
CCCAGCACGAGCGGC                                        915
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Amino acid sequence for residues 596-900 of EPHA2 with a cleavable (rTev) N-terminal 6x-histidine tag [SEQ ID NO: 3] (6x-histidine tag and cleavage site are underlined)

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MSYYHHHHHHDYDIPTTENLYFQGAMGSDPNQAVLKFTTEIHPSCVTRQK      50
VIGAGEFGEVYKGMLKTSSGKKEVPVAIKTLKAGYTEKQRVDFLGEAGIM     100
GQFSHHNIIRLEGVISKYKPMMIITEYMENGALDKFLREKDGEFSVLQLV     150
GMLRGIAAGMKYLANMNYVHRDLAARNILVNSNLVCKVSDFGLSRVLEDD     200
PEATYTTSGGKIPIRWTAPEAISYRKFTSASDVWSFGIVMWEVMTYGERP     250
YWELSNHEVMKAINDGFRLPTPMDCPSAIYQLMMQCWQQERARRPKFADI     300
VSILDKLIRAPDSLKTLADFDPRVSIRLPSTSG                      333
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FIGURE 3

LEGEND

Column headings from left to right are (A)'Atom Number', (B)'Atom Type', (C)'Amino Acid', (D)'Chain Identifier', (E)'Amino Acid Number' (SEQ ID NO: 1), (F)'X Coordinate', (G)'Y Coordinate', (H)'Z Coordinate', (I)'Occupancy' (OCC) and (J)'B factor'.

A	B	C	D	E	F	G	H	I	J
1	N	ALA	A	605	47.239	45.529	67.448	1.00	51.83
2	CA	ALA	A	605	46.929	45.860	66.049	1.00	52.40
3	CB	ALA	A	605	45.751	44.876	65.490	1.00	51.40
4	C	ALA	A	605	46.433	47.259	66.307	1.00	51.78
5	O	ALA	A	605	46.252	47.630	67.422	1.00	52.61
6	N	THR	A	606	46.218	48.048	65.302	1.00	51.19
7	CA	THR	A	606	45.719	49.337	65.564	1.00	49.98
8	CB	THR	A	606	46.128	50.120	64.454	1.00	48.98
9	OG1	THR	A	606	47.553	50.041	64.401	1.00	50.88
10	CG2	THR	A	606	45.766	51.541	64.651	1.00	48.25
11	C	THR	A	606	44.201	49.397	65.650	1.00	50.57
12	O	THR	A	606	43.487	48.868	64.787	1.00	51.60
13	N	GLU	A	607	43.680	50.086	66.646	1.00	49.68
14	CA	GLU	A	607	42.264	50.182	66.717	1.00	47.97
15	CB	GLU	A	607	41.796	50.123	68.130	1.00	47.41
16	CG	GLU	A	607	40.323	50.414	68.279	1.00	50.07
17	CD	GLU	A	607	39.394	49.230	68.074	1.00	39.82
18	OE1	GLU	A	607	39.796	48.072	68.195	1.00	38.52
19	OE2	GLU	A	607	38.260	49.515	67.856	1.00	41.61
20	C	GLU	A	607	41.841	51.347	65.971	1.00	48.16
21	O	GLU	A	607	42.392	52.398	66.162	1.00	48.74
22	N	ILE	A	608	40.955	51.146	64.963	1.00	50.14
23	CA	ILE	A	608	40.531	52.309	64.228	1.00	49.42
24	CB	ILE	A	608	41.128	52.517	62.742	1.00	51.19
25	CG1	ILE	A	608	40.066	52.886	61.752	1.00	49.45
26	CD1	ILE	A	608	39.259	51.726	61.615	1.00	60.72
27	CG2	ILE	A	608	42.168	51.494	62.300	1.00	47.67
28	C	ILE	A	608	39.135	52.787	64.481	1.00	51.43
29	O	ILE	A	608	38.254	52.049	64.879	1.00	51.22
30	N	HIS	A	609	38.983	54.090	64.361	1.00	53.40
31	CA	HIS	A	609	37.727	54.745	64.674	1.00	55.30
32	CB	HIS	A	609	37.938	56.203	65.196	1.00	57.26
33	CG	HIS	A	609	36.715	56.776	65.835	1.00	60.02
34	ND1	HIS	A	609	36.486	56.686	67.186	1.00	62.57
35	CE1	HIS	A	609	35.313	57.221	67.471	1.00	62.48
36	NE2	HIS	A	609	34.764	57.635	66.348	1.00	63.53
37	CD2	HIS	A	609	35.606	57.345	65.301	1.00	62.09
38	C	HIS	A	609	36.701	54.718	63.557	1.00	53.34
39	O	HIS	A	609	36.943	55.109	62.474	1.00	55.03
40	N	PRO	A	610	35.517	54.263	63.854	1.00	52.90
41	CA	PRO	A	610	34.533	54.113	62.805	1.00	53.20
42	CB	PRO	A	610	33.246	53.864	63.591	1.00	52.67
43	CG	PRO	A	610	33.753	53.087	64.713	1.00	50.94

FIGURE 3A

A	B	C	D	E	F	G	H	I	J
44	CD	PRO	A	610	35.069	53.682	65.133	1.00	52.08
45	C	PRO	A	610	34.421	55.273	61.903	1.00	52.69
46	O	PRO	A	610	33.935	55.146	60.793	1.00	55.21
47	N	SER	A	611	34.789	56.418	62.391	1.00	52.17
48	CA	SER	A	611	34.546	57.584	61.639	1.00	52.33
49	CB	SER	A	611	34.694	58.833	62.562	1.00	54.93
50	OG	SER	A	611	35.822	58.723	63.443	1.00	49.81
51	C	SER	A	611	35.579	57.611	60.552	1.00	52.77
52	O	SER	A	611	35.394	58.256	59.545	1.00	54.01
53	N	CYS	A	612	36.679	56.915	60.701	1.00	49.87
54	CA	CYS	A	612	37.633	57.083	59.642	1.00	51.06
55	CB	CYS	A	612	39.044	56.889	60.169	1.00	50.65
56	SG	CYS	A	612	39.193	57.805	61.702	1.00	55.75
57	C	CYS	A	612	37.445	56.214	58.426	1.00	49.07
58	O	CYS	A	612	38.215	56.286	57.479	1.00	48.12
59	N	VAL	A	613	36.470	55.349	58.497	1.00	49.20
60	CA	VAL	A	613	36.329	54.361	57.471	1.00	48.42
61	CB	VAL	A	613	36.130	52.976	58.087	1.00	49.58
62	CG1	VAL	A	613	35.493	52.026	57.030	1.00	46.32
63	CG2	VAL	A	613	37.477	52.423	58.651	1.00	46.61
64	C	VAL	A	613	35.039	54.652	56.779	1.00	47.49
65	O	VAL	A	613	34.080	55.078	57.401	1.00	46.54
66	N	THR	A	614	34.976	54.426	55.496	1.00	46.87
67	CA	THR	A	614	33.674	54.449	54.961	1.00	47.76
68	CB	THR	A	614	33.230	55.839	54.547	1.00	48.10
69	OG1	THR	A	614	32.501	55.759	53.312	1.00	53.74
70	CG2	THR	A	614	34.430	56.804	54.383	1.00	48.56
71	C	THR	A	614	33.479	53.362	53.956	1.00	47.36
72	O	THR	A	614	34.145	53.317	52.971	1.00	49.44
73	N	ARG	A	615	32.519	52.496	54.192	1.00	46.37
74	CA	ARG	A	615	32.356	51.360	53.352	1.00	44.80
75	CB	ARG	A	615	31.323	50.464	53.993	1.00	43.89
76	CG	ARG	A	615	31.817	49.366	54.921	1.00	44.82
77	CD	ARG	A	615	30.699	48.434	55.297	1.00	45.58
78	NE	ARG	A	615	29.827	49.226	56.142	1.00	49.04
79	CZ	ARG	A	615	29.151	48.769	57.151	1.00	51.81
80	NH1	ARG	A	615	29.164	47.437	57.427	1.00	50.76
81	NH2	ARG	A	615	28.473	49.652	57.883	1.00	51.85
82	C	ARG	A	615	31.694	51.886	52.150	1.00	45.54
83	O	ARG	A	615	30.737	52.603	52.357	1.00	47.25
84	N	GLN	A	616	32.035	51.399	50.944	1.00	45.88
85	CA	GLN	A	616	31.366	51.824	49.681	1.00	46.97
86	CB	GLN	A	616	32.323	52.657	48.734	1.00	47.24
87	CG	GLN	A	616	33.258	53.608	49.475	1.00	49.82
88	CD	GLN	A	616	34.200	54.437	48.588	1.00	55.54
89	OE1	GLN	A	616	35.203	53.909	48.073	1.00	56.72
90	NE2	GLN	A	616	33.889	55.770	48.428	1.00	56.51
91	C	GLN	A	616	30.597	50.752	48.848	1.00	46.63
92	O	GLN	A	616	29.448	50.970	48.361	1.00	48.68
93	N	LYS	A	617	31.167	49.598	48.678	1.00	44.77
94	CA	LYS	A	617	30.497	48.628	47.857	1.00	44.21
95	CB	LYS	A	617	30.835	48.787	46.331	1.00	44.70

FIGURE 3B

A	B	C	D	E	F	G	H	I	J
96	CG	LYS	A	617	32.399	48.959	45.944	1.00	48.09
97	CD	LYS	A	617	32.768	48.759	44.391	1.00	58.41
98	CE	LYS	A	617	34.285	49.300	44.085	1.00	60.72
99	NZ	LYS	A	617	35.073	48.944	42.813	1.00	59.09
100	C	LYS	A	617	31.019	47.331	48.370	1.00	43.38
101	O	LYS	A	617	32.139	47.297	48.834	1.00	42.92
102	N	VAL	A	618	30.126	46.333	48.379	1.00	42.86
103	CA	VAL	A	618	30.376	44.945	48.657	1.00	41.23
104	CB	VAL	A	618	29.070	44.146	48.522	1.00	39.95
105	CG1	VAL	A	618	29.426	42.622	48.582	1.00	40.13
106	CG2	VAL	A	618	28.147	44.503	49.610	1.00	42.60
107	C	VAL	A	618	31.203	44.381	47.543	1.00	40.46
108	O	VAL	A	618	30.854	44.667	46.392	1.00	42.70
109	N	ILE	A	619	32.237	43.567	47.809	1.00	37.69
110	CA	ILE	A	619	33.059	43.022	46.731	1.00	33.98
111	CB	ILE	A	619	34.521	43.786	46.495	1.00	36.65
112	CG1	ILE	A	619	35.584	43.320	47.540	1.00	31.94
113	CD1	ILE	A	619	36.383	44.380	48.493	1.00	29.73
114	CG2	ILE	A	619	34.380	45.336	46.302	1.00	31.41
115	C	ILE	A	619	33.357	41.588	46.995	1.00	33.91
116	O	ILE	A	619	34.185	41.024	46.280	1.00	35.83
117	N	GLY	A	620	32.752	40.970	47.989	1.00	32.82
118	CA	GLY	A	620	33.039	39.577	48.271	1.00	32.89
119	C	GLY	A	620	32.373	39.194	49.553	1.00	32.89
120	O	GLY	A	620	31.714	39.949	50.177	1.00	30.70
121	N	ALA	A	621	32.511	37.954	49.897	1.00	34.15
122	CA	ALA	A	621	31.818	37.384	51.019	1.00	35.78
123	CB	ALA	A	621	30.777	36.453	50.533	1.00	35.84
124	C	ALA	A	621	32.833	36.551	51.687	1.00	37.56
125	O	ALA	A	621	33.491	35.782	51.007	1.00	39.38
126	N	GLY	A	622	33.026	36.691	52.986	1.00	38.91
127	CA	GLY	A	622	34.006	35.848	53.611	1.00	38.65
128	C	GLY	A	622	33.398	34.928	54.575	1.00	39.55
129	O	GLY	A	622	32.173	34.902	54.796	1.00	36.11
130	N	GLU	A	623	34.293	34.225	55.272	1.00	41.01
131	CA	GLU	A	623	33.843	33.363	56.342	1.00	41.61
132	CB	GLU	A	623	35.046	32.793	57.068	1.00	43.27
133	CG	GLU	A	623	34.682	31.885	58.223	1.00	50.78
134	CD	GLU	A	623	35.838	31.063	58.780	1.00	65.56
135	OE1	GLU	A	623	36.962	31.030	58.200	1.00	64.79
136	OE2	GLU	A	623	35.592	30.422	59.836	1.00	72.34
137	C	GLU	A	623	32.965	34.088	57.417	1.00	40.39
138	O	GLU	A	623	32.055	33.457	57.987	1.00	38.12
139	N	PHE	A	624	33.265	35.347	57.758	1.00	37.75
140	CA	PHE	A	624	32.522	35.965	58.889	1.00	36.41
141	CB	PHE	A	624	33.506	36.538	59.933	1.00	37.60
142	CG	PHE	A	624	34.593	35.546	60.354	1.00	34.22
143	CD1	PHE	A	624	34.285	34.584	61.169	1.00	32.75
144	CE1	PHE	A	624	35.256	33.643	61.527	1.00	42.16
145	CZ	PHE	A	624	36.568	33.666	61.022	1.00	37.78
146	CE2	PHE	A	624	36.866	34.594	60.168	1.00	37.66
147	CD2	PHE	A	624	35.861	35.571	59.805	1.00	37.30

FIGURE 3C

A	B	C	D	E	F	G	H	I	J
148	C	PHE	A	624	31.569	37.066	58.437	1.00	35.68
149	O	PHE	A	624	30.875	37.739	59.261	1.00	36.44
150	N	GLY	A	625	31.557	37.336	57.140	1.00	35.15
151	CA	GLY	A	625	30.731	38.445	56.714	1.00	32.08
152	C	GLY	A	625	31.164	39.011	55.423	1.00	32.29
153	O	GLY	A	625	32.177	38.633	54.858	1.00	32.00
154	N	GLU	A	626	30.422	39.990	54.988	1.00	33.82
155	CA	GLU	A	626	30.710	40.519	53.695	1.00	37.80
156	CB	GLU	A	626	29.534	41.289	53.103	1.00	36.83
157	CG	GLU	A	626	28.396	40.298	52.839	1.00	42.38
158	CD	GLU	A	626	27.343	40.941	51.992	1.00	45.04
159	OE1	GLU	A	626	27.289	40.680	50.777	1.00	47.93
160	OE2	GLU	A	626	26.632	41.773	52.553	1.00	43.41
161	C	GLU	A	626	31.896	41.377	53.719	1.00	37.16
162	O	GLU	A	626	32.262	41.878	54.803	1.00	35.84
163	N	VAL	A	627	32.477	41.552	52.508	1.00	35.91
164	CA	VAL	A	627	33.711	42.268	52.392	1.00	34.05
165	CB	VAL	A	627	34.839	41.340	51.861	1.00	36.58
166	CG1	VAL	A	627	36.210	42.135	51.691	1.00	30.17
167	CG2	VAL	A	627	34.986	40.244	52.740	1.00	33.27
168	C	VAL	A	627	33.388	43.380	51.461	1.00	34.18
169	O	VAL	A	627	32.633	43.157	50.568	1.00	31.95
170	N	TYR	A	628	33.990	44.575	51.680	1.00	33.62
171	CA	TYR	A	628	33.618	45.746	50.948	1.00	33.35
172	CB	TYR	A	628	32.892	46.766	51.894	1.00	35.70
173	CG	TYR	A	628	31.519	46.398	52.411	1.00	35.23
174	CD1	TYR	A	628	31.344	45.529	53.497	1.00	34.62
175	CE1	TYR	A	628	30.088	45.215	53.976	1.00	36.28
176	CZ	TYR	A	628	28.935	45.759	53.348	1.00	39.83
177	OH	TYR	A	628	27.634	45.479	53.748	1.00	41.33
178	CE2	TYR	A	628	29.080	46.582	52.266	1.00	43.12
179	CD2	TYR	A	628	30.397	46.941	51.826	1.00	40.98
180	C	TYR	A	628	34.890	46.407	50.597	1.00	33.72
181	O	TYR	A	628	35.938	46.184	51.223	1.00	35.69
182	N	LYS	A	629	34.749	47.365	49.743	1.00	33.77
183	CA	LYS	A	629	35.792	48.236	49.369	1.00	36.45
184	CB	LYS	A	629	35.613	48.688	47.939	1.00	36.34
185	CG	LYS	A	629	36.692	49.598	47.624	1.00	41.68
186	CD	LYS	A	629	36.232	50.858	47.072	1.00	45.46
187	CE	LYS	A	629	37.426	51.809	46.890	1.00	51.36
188	NZ	LYS	A	629	36.962	53.283	46.736	1.00	49.95
189	C	LYS	A	629	35.440	49.455	50.046	1.00	37.55
190	O	LYS	A	629	34.298	49.740	50.227	1.00	37.87
191	N	GLY	A	630	36.415	50.286	50.355	1.00	41.21
192	CA	GLY	A	630	36.010	51.559	50.912	1.00	42.33
193	C	GLY	A	630	37.204	52.450	51.067	1.00	44.89
194	O	GLY	A	630	38.205	52.287	50.392	1.00	45.71
195	N	MET	A	631	37.086	53.363	52.008	1.00	46.92
196	CA	MET	A	631	38.014	54.443	52.136	1.00	48.84
197	CB	MET	A	631	37.379	55.734	51.608	1.00	49.65
198	CG	MET	A	631	37.177	55.731	50.070	1.00	51.92
199	SD	MET	A	631	38.727	55.249	49.171	1.00	57.95

FIGURE 3D

A	B	C	D	E	F	G	H	I	J
200	CE	MET	A	631	39.478	56.799	48.727	1.00	56.76
201	C	MET	A	631	38.379	54.619	53.587	1.00	49.23
202	O	MET	A	631	37.493	54.616	54.462	1.00	47.16
203	N	LEU	A	632	39.696	54.667	53.828	1.00	47.01
204	CA	LEU	A	632	40.144	54.951	55.148	1.00	48.50
205	CB	LEU	A	632	41.204	53.954	55.531	1.00	46.95
206	CG	LEU	A	632	41.924	54.217	56.805	1.00	47.11
207	CD1	LEU	A	632	40.936	53.899	57.902	1.00	45.89
208	CD2	LEU	A	632	43.172	53.311	56.944	1.00	47.90
209	C	LEU	A	632	40.680	56.425	55.221	1.00	50.08
210	O	LEU	A	632	41.388	56.932	54.323	1.00	47.85
211	N	ALA	A	633	40.279	57.138	56.256	1.00	52.44
212	CA	ALA	A	633	40.873	58.465	56.388	1.00	56.35
213	CB	ALA	A	633	39.848	59.562	56.836	1.00	55.50
214	C	ALA	A	633	41.842	58.189	57.445	1.00	56.34
215	O	ALA	A	633	41.406	57.920	58.493	1.00	58.62
216	N	ALA	A	634	43.136	58.194	57.224	1.00	57.84
217	CA	ALA	A	634	43.920	57.980	58.415	1.00	61.35
218	CB	ALA	A	634	45.364	57.774	58.115	1.00	62.22
219	C	ALA	A	634	43.771	59.263	59.222	1.00	62.67
220	O	ALA	A	634	44.422	60.208	58.850	1.00	64.38
221	N	ALA	A	638	43.383	64.048	56.993	1.00	78.26
222	CA	ALA	A	638	44.752	64.060	56.359	1.00	79.12
223	CB	ALA	A	638	45.788	63.305	57.237	1.00	78.95
224	C	ALA	A	638	44.822	63.605	54.872	1.00	79.32
225	O	ALA	A	638	45.141	64.402	54.006	1.00	79.88
226	N	ALA	A	639	44.531	62.334	54.589	1.00	78.59
227	CA	ALA	A	639	44.620	61.761	53.238	1.00	77.38
228	CB	ALA	A	639	46.119	61.531	52.875	1.00	78.65
229	C	ALA	A	639	43.843	60.408	53.247	1.00	75.52
230	O	ALA	A	639	44.050	59.569	54.155	1.00	75.87
231	N	GLU	A	640	42.935	60.248	52.273	1.00	71.51
232	CA	GLU	A	640	41.968	59.139	52.171	1.00	66.84
233	CB	GLU	A	640	40.701	59.599	51.433	1.00	66.51
234	CG	GLU	A	640	39.483	58.732	51.713	1.00	68.84
235	CD	GLU	A	640	38.106	59.433	51.585	1.00	70.86
236	OE1	GLU	A	640	37.834	60.052	50.511	1.00	71.60
237	OE2	GLU	A	640	37.274	59.351	52.561	1.00	70.47
238	C	GLU	A	640	42.571	58.052	51.379	1.00	63.66
239	O	GLU	A	640	43.179	58.300	50.363	1.00	64.69
240	N	VAL	A	641	42.394	56.821	51.807	1.00	60.16
241	CA	VAL	A	641	43.028	55.721	51.100	1.00	55.19
242	CB	VAL	A	641	44.352	55.368	51.777	1.00	54.62
243	CG1	VAL	A	641	44.223	54.272	52.749	1.00	50.91
244	CG2	VAL	A	641	45.363	55.043	50.767	1.00	56.67
245	C	VAL	A	641	42.102	54.570	50.931	1.00	52.53
246	O	VAL	A	641	41.378	54.194	51.812	1.00	55.11
247	N	PRO	A	642	42.105	53.989	49.767	1.00	51.34
248	CA	PRO	A	642	41.271	52.776	49.477	1.00	47.14
249	CB	PRO	A	642	41.664	52.399	48.064	1.00	47.64
250	CG	PRO	A	642	42.633	53.493	47.544	1.00	50.33
251	CD	PRO	A	642	42.943	54.475	48.637	1.00	50.56

FIGURE 3E

A	B	C	D	E	F	G	H	I	J
252	C	PRO	A	642	41.625	51.589	50.367	1.00	45.19
253	O	PRO	A	642	42.816	51.373	50.765	1.00	44.61
254	N	VAL	A	643	40.636	50.779	50.710	1.00	40.92
255	CA	VAL	A	643	40.925	49.716	51.646	1.00	37.39
256	CB	VAL	A	643	40.652	50.209	53.117	1.00	37.96
257	CG1	VAL	A	643	41.889	50.869	53.733	1.00	39.75
258	CG2	VAL	A	643	39.377	51.186	53.225	1.00	32.90
259	C	VAL	A	643	39.921	48.664	51.373	1.00	36.92
260	O	VAL	A	643	38.827	48.941	50.848	1.00	38.74
261	N	ALA	A	644	40.226	47.464	51.769	1.00	34.90
262	CA	ALA	A	644	39.217	46.411	51.722	1.00	34.08
263	CB	ALA	A	644	39.858	45.092	51.412	1.00	31.97
264	C	ALA	A	644	38.726	46.373	53.179	1.00	35.58
265	O	ALA	A	644	39.526	46.712	54.096	1.00	30.86
266	N	ILE	A	645	37.443	45.968	53.393	1.00	36.25
267	CA	ILE	A	645	36.922	45.950	54.744	1.00	34.97
268	CB	ILE	A	645	35.932	47.080	54.876	1.00	35.85
269	CG1	ILE	A	645	36.577	48.336	54.488	1.00	37.94
270	CD1	ILE	A	645	35.489	49.480	54.224	1.00	39.26
271	CG2	ILE	A	645	35.314	47.127	56.304	1.00	32.71
272	C	ILE	A	645	36.201	44.682	55.066	1.00	33.98
273	O	ILE	A	645	35.113	44.491	54.584	1.00	36.64
274	N	LYS	A	646	36.714	43.846	55.922	1.00	34.87
275	CA	LYS	A	646	36.008	42.632	56.289	1.00	38.18
276	CB	LYS	A	646	37.040	41.499	56.633	1.00	39.75
277	CG	LYS	A	646	37.905	41.096	55.427	1.00	44.65
278	CD	LYS	A	646	38.718	39.873	55.721	1.00	47.74
279	CE	LYS	A	646	38.775	38.957	54.557	1.00	56.44
280	NZ	LYS	A	646	40.016	39.325	53.698	1.00	67.82
281	C	LYS	A	646	35.078	42.871	57.482	1.00	37.98
282	O	LYS	A	646	35.524	43.217	58.526	1.00	39.11
283	N	THR	A	647	33.779	42.703	57.344	1.00	38.53
284	CA	THR	A	647	32.898	42.869	58.518	1.00	35.17
285	CB	THR	A	647	31.620	43.563	58.086	1.00	35.95
286	OG1	THR	A	647	30.886	42.779	57.136	1.00	31.75
287	CG2	THR	A	647	31.977	44.751	57.224	1.00	26.19
288	C	THR	A	647	32.581	41.580	59.205	1.00	35.41
289	O	THR	A	647	32.741	40.482	58.693	1.00	36.20
290	N	LEU	A	648	32.208	41.704	60.429	1.00	35.38
291	CA	LEU	A	648	31.915	40.572	61.187	1.00	37.01
292	CB	LEU	A	648	32.612	40.708	62.523	1.00	36.29
293	CG	LEU	A	648	32.176	39.634	63.510	1.00	34.38
294	CD1	LEU	A	648	32.349	38.265	63.066	1.00	33.21
295	CD2	LEU	A	648	32.938	39.707	64.670	1.00	38.96
296	C	LEU	A	648	30.383	40.645	61.334	1.00	39.65
297	O	LEU	A	648	29.873	41.630	61.869	1.00	41.32
298	N	LYS	A	649	29.631	39.670	60.813	1.00	39.93
299	CA	LYS	A	649	28.175	39.764	60.832	1.00	38.04
300	CB	LYS	A	649	27.610	38.564	60.128	1.00	38.58
301	CG	LYS	A	649	27.766	37.309	60.890	1.00	38.14
302	CD	LYS	A	649	27.679	36.238	59.889	1.00	35.47
303	CE	LYS	A	649	27.535	34.883	60.524	1.00	35.35

FIGURE 3F

A	B	C	D	E	F	G	H	I	J
304	NZ	LYS	A	649	27.499	33.710	59.600	1.00	36.16
305	C	LYS	A	649	27.630	39.998	62.226	1.00	38.13
306	O	LYS	A	649	28.217	39.517	63.181	1.00	38.78
307	N	ALA	A	650	26.642	40.900	62.370	1.00	38.37
308	CA	ALA	A	650	26.009	41.267	63.688	1.00	38.30
309	CB	ALA	A	650	24.721	41.954	63.443	1.00	37.99
310	C	ALA	A	650	25.680	39.928	64.183	1.00	38.32
311	O	ALA	A	650	25.410	39.138	63.320	1.00	40.75
312	N	GLY	A	651	25.632	39.493	65.416	1.00	35.55
313	CA	GLY	A	651	25.195	38.071	65.179	1.00	36.67
314	C	GLY	A	651	26.171	36.916	65.234	1.00	33.22
315	O	GLY	A	651	25.899	35.767	65.646	1.00	30.70
316	N	TYR	A	652	27.390	37.294	65.039	1.00	34.28
317	CA	TYR	A	652	28.455	36.416	65.446	1.00	36.25
318	CB	TYR	A	652	29.684	37.205	65.494	1.00	38.05
319	CG	TYR	A	652	29.668	38.292	66.484	1.00	38.76
320	CD1	TYR	A	652	30.221	38.086	67.745	1.00	36.74
321	CE1	TYR	A	652	30.242	39.091	68.684	1.00	34.51
322	CZ	TYR	A	652	29.778	40.325	68.329	1.00	40.27
323	OH	TYR	A	652	29.893	41.245	69.291	1.00	42.40
324	CE2	TYR	A	652	29.178	40.584	67.038	1.00	34.15
325	CD2	TYR	A	652	29.169	39.556	66.141	1.00	38.47
326	C	TYR	A	652	28.386	35.850	66.803	1.00	35.31
327	O	TYR	A	652	27.919	36.531	67.696	1.00	34.45
328	N	THR	A	653	28.961	34.652	66.947	1.00	35.94
329	CA	THR	A	653	29.209	33.999	68.234	1.00	36.94
330	CB	THR	A	653	29.248	32.522	68.183	1.00	37.69
331	OG1	THR	A	653	30.427	32.201	67.433	1.00	40.83
332	CG2	THR	A	653	28.007	31.792	67.363	1.00	32.24
333	C	THR	A	653	30.595	34.418	68.718	1.00	37.14
334	O	THR	A	653	31.347	34.985	68.015	1.00	37.03
335	N	GLU	A	654	30.831	34.210	69.998	1.00	37.12
336	CA	GLU	A	654	32.094	34.484	70.674	1.00	37.20
337	CB	GLU	A	654	32.074	33.802	72.025	1.00	34.84
338	CG	GLU	A	654	33.380	34.188	72.705	1.00	44.32
339	CD	GLU	A	654	33.571	35.731	72.609	1.00	48.08
340	OE1	GLU	A	654	32.591	36.470	72.366	1.00	54.40
341	OE2	GLU	A	654	34.675	36.206	72.771	1.00	46.32
342	C	GLU	A	654	33.316	33.880	69.890	1.00	35.96
343	O	GLU	A	654	34.306	34.579	69.620	1.00	33.58
344	N	LYS	A	655	33.161	32.605	69.577	1.00	35.57
345	CA	LYS	A	655	34.030	31.857	68.747	1.00	39.28
346	CB	LYS	A	655	33.532	30.394	68.482	1.00	39.74
347	CG	LYS	A	655	34.682	29.481	68.003	1.00	46.57
348	CD	LYS	A	655	34.375	28.446	66.854	1.00	53.64
349	CE	LYS	A	655	35.674	27.584	66.374	1.00	58.92
350	NZ	LYS	A	655	37.147	28.174	66.350	1.00	58.41
351	C	LYS	A	655	34.326	32.574	67.379	1.00	38.72
352	O	LYS	A	655	35.481	32.624	67.012	1.00	41.81
353	N	GLN	A	656	33.329	33.111	66.678	1.00	35.08
354	CA	GLN	A	656	33.583	33.809	65.411	1.00	36.08
355	CB	GLN	A	656	32.355	34.070	64.590	1.00	32.82

FIGURE 3G

A	B	C	D	E	F	G	H	I	J
356	CG	GLN	A	656	31.709	32.793	64.216	1.00	35.27
357	CD	GLN	A	656	30.255	32.982	63.707	1.00	37.96
358	OE1	GLN	A	656	29.471	33.846	64.157	1.00	30.18
359	NE2	GLN	A	656	29.948	32.217	62.693	1.00	42.57
360	C	GLN	A	656	34.305	35.111	65.659	1.00	35.54
361	O	GLN	A	656	35.196	35.485	64.899	1.00	35.47
362	N	ARG	A	657	33.951	35.722	66.760	1.00	35.39
363	CA	ARG	A	657	34.557	36.985	67.147	1.00	39.00
364	CB	ARG	A	657	33.923	37.539	68.413	1.00	37.06
365	CG	ARG	A	657	34.401	38.841	68.811	1.00	40.49
366	CD	ARG	A	657	34.033	39.137	70.269	1.00	41.44
367	NE	ARG	A	657	34.843	40.262	70.614	1.00	54.97
368	CZ	ARG	A	657	35.982	40.205	71.383	1.00	54.52
369	NH1	ARG	A	657	36.451	39.051	71.945	1.00	43.49
370	NH2	ARG	A	657	36.616	41.349	71.556	1.00	55.48
371	C	ARG	A	657	36.017	36.717	67.311	1.00	38.95
372	O	ARG	A	657	36.826	37.240	66.592	1.00	37.52
373	N	VAL	A	658	36.331	35.771	68.150	1.00	42.72
374	CA	VAL	A	658	37.722	35.481	68.321	1.00	45.25
375	CB	VAL	A	658	37.957	34.577	69.517	1.00	47.74
376	CG1	VAL	A	658	39.291	33.787	69.368	1.00	48.43
377	CG2	VAL	A	658	37.935	35.483	70.791	1.00	49.98
378	C	VAL	A	658	38.449	35.036	67.044	1.00	45.07
379	O	VAL	A	658	39.466	35.669	66.720	1.00	44.99
380	N	ASP	A	659	37.913	34.045	66.299	1.00	42.92
381	CA	ASP	A	659	38.561	33.655	65.043	1.00	41.99
382	CB	ASP	A	659	37.891	32.498	64.307	1.00	41.26
383	CG	ASP	A	659	37.826	31.278	65.177	1.00	45.94
384	OD1	ASP	A	659	37.109	30.301	64.847	1.00	46.31
385	OD2	ASP	A	659	38.451	31.252	66.249	1.00	43.77
386	C	ASP	A	659	38.683	34.857	64.176	1.00	39.97
387	O	ASP	A	659	39.687	35.012	63.586	1.00	36.58
388	N	PHE	A	660	37.703	35.756	64.220	1.00	38.73
389	CA	PHE	A	660	37.765	36.881	63.312	1.00	39.49
390	CB	PHE	A	660	36.385	37.556	63.203	1.00	37.46
391	CG	PHE	A	660	36.343	38.830	62.388	1.00	33.56
392	CD1	PHE	A	660	36.342	40.047	62.976	1.00	32.33
393	CE1	PHE	A	660	36.323	41.209	62.257	1.00	28.65
394	CZ	PHE	A	660	36.136	41.248	60.858	1.00	24.95
395	CE2	PHE	A	660	36.059	40.060	60.259	1.00	28.98
396	CD2	PHE	A	660	36.099	38.814	61.088	1.00	32.15
397	C	PHE	A	660	38.897	37.885	63.675	1.00	39.32
398	O	PHE	A	660	39.584	38.276	62.825	1.00	38.41
399	N	LEU	A	661	39.061	38.276	64.928	1.00	40.15
400	CA	LEU	A	661	40.011	39.306	65.232	1.00	42.07
401	CB	LEU	A	661	39.711	39.915	66.582	1.00	43.38
402	CG	LEU	A	661	38.437	40.774	66.709	1.00	43.55
403	CD1	LEU	A	661	38.306	41.372	68.133	1.00	39.97
404	CD2	LEU	A	661	38.580	41.902	65.756	1.00	37.68
405	C	LEU	A	661	41.347	38.552	65.294	1.00	41.94
406	O	LEU	A	661	42.340	39.129	65.120	1.00	41.62
407	N	GLY	A	662	41.349	37.252	65.485	1.00	39.75

FIGURE 3H

A	B	C	D	E	F	G	H	I	J
408	CA	GLY	A	662	42.603	36.635	65.570	1.00	40.93
409	C	GLY	A	662	43.418	36.757	64.273	1.00	43.18
410	O	GLY	A	662	44.590	37.160	64.286	1.00	42.86
411	N	GLU	A	663	42.779	36.439	63.154	1.00	42.57
412	CA	GLU	A	663	43.393	36.553	61.894	1.00	42.39
413	CB	GLU	A	663	42.379	36.281	60.792	1.00	44.11
414	CG	GLU	A	663	42.829	36.991	59.480	1.00	48.03
415	CD	GLU	A	663	42.396	36.230	58.234	1.00	54.58
416	OE1	GLU	A	663	41.241	35.605	58.330	1.00	52.44
417	OE2	GLU	A	663	43.208	36.292	57.213	1.00	53.06
418	C	GLU	A	663	43.976	37.968	61.741	1.00	40.61
419	O	GLU	A	663	45.090	38.192	61.213	1.00	37.63
420	N	ALA	A	664	43.273	38.944	62.230	1.00	38.99
421	CA	ALA	A	664	43.939	40.237	62.062	1.00	40.23
422	CB	ALA	A	664	42.965	41.347	62.358	1.00	41.34
423	C	ALA	A	664	45.114	40.278	63.055	1.00	39.40
424	O	ALA	A	664	46.136	40.873	62.831	1.00	39.10
425	N	GLY	A	665	44.989	39.570	64.138	1.00	38.27
426	CA	GLY	A	665	46.087	39.586	65.064	1.00	42.63
427	C	GLY	A	665	47.347	39.076	64.355	1.00	44.59
428	O	GLY	A	665	48.410	39.610	64.610	1.00	45.78
429	N	ILE	A	666	47.200	38.070	63.464	1.00	44.36
430	CA	ILE	A	666	48.295	37.277	62.941	1.00	42.46
431	CB	ILE	A	666	47.627	36.023	62.510	1.00	44.08
432	CG1	ILE	A	666	47.247	35.276	63.731	1.00	42.77
433	CD1	ILE	A	666	46.394	34.096	63.279	1.00	43.64
434	CG2	ILE	A	666	48.406	35.006	61.565	1.00	42.50
435	C	ILE	A	666	48.846	38.081	61.853	1.00	41.32
436	O	ILE	A	666	49.986	38.330	61.798	1.00	41.39
437	N	MET	A	667	47.988	38.726	61.143	1.00	41.98
438	CA	MET	A	667	48.371	39.417	59.971	1.00	41.72
439	CB	MET	A	667	47.073	39.871	59.303	1.00	42.41
440	CG	MET	A	667	47.154	40.885	58.149	1.00	41.60
441	SD	MET	A	667	45.384	40.798	57.345	1.00	50.77
442	CE	MET	A	667	44.917	39.215	57.870	1.00	44.36
443	C	MET	A	667	49.155	40.575	60.497	1.00	42.65
444	O	MET	A	667	50.088	41.128	59.816	1.00	38.11
445	N	GLY	A	668	48.790	40.953	61.734	1.00	42.74
446	CA	GLY	A	668	49.348	42.203	62.310	1.00	42.47
447	C	GLY	A	668	50.820	42.083	62.677	1.00	40.74
448	O	GLY	A	668	51.552	43.010	62.772	1.00	39.44
449	N	GLN	A	669	51.241	40.861	62.790	1.00	40.10
450	CA	GLN	A	669	52.563	40.577	63.149	1.00	40.54
451	CB	GLN	A	669	52.547	39.193	63.729	1.00	39.50
452	CG	GLN	A	669	52.011	39.318	65.065	1.00	43.35
453	CD	GLN	A	669	51.833	37.999	65.772	1.00	53.41
454	OE1	GLN	A	669	50.716	37.616	66.048	1.00	59.36
455	NE2	GLN	A	669	52.917	37.334	66.121	1.00	57.56
456	C	GLN	A	669	53.472	40.657	61.955	1.00	41.95
457	O	GLN	A	669	54.683	40.622	62.152	1.00	41.00
458	N	PHE	A	670	52.922	40.908	60.729	1.00	40.25
459	CA	PHE	A	670	53.738	40.932	59.578	1.00	38.18

FIGURE 3I

A	B	C	D	E	F	G	H	I	J
460	CB	PHE	A	670	53.159	40.016	58.570	1.00	40.10
461	CG	PHE	A	670	52.990	38.623	59.105	1.00	35.26
462	CD1	PHE	A	670	51.962	37.897	58.751	1.00	33.32
463	CE1	PHE	A	670	51.803	36.621	59.214	1.00	35.47
464	CZ	PHE	A	670	52.720	36.032	59.976	1.00	36.73
465	CE2	PHE	A	670	53.818	36.749	60.310	1.00	40.51
466	CD2	PHE	A	670	53.948	38.063	59.833	1.00	37.75
467	C	PHE	A	670	53.941	42.231	58.974	1.00	39.07
468	O	PHE	A	670	53.038	43.044	59.012	1.00	37.82
469	N	SER	A	671	55.170	42.491	58.485	1.00	37.93
470	CA	SER	A	671	55.327	43.719	57.712	1.00	39.08
471	CB	SER	A	671	55.937	44.825	58.533	1.00	40.17
472	OG	SER	A	671	55.915	46.032	57.754	1.00	43.39
473	C	SER	A	671	56.231	43.445	56.466	1.00	41.33
474	O	SER	A	671	57.490	43.349	56.554	1.00	38.64
475	N	HIS	A	672	55.586	43.358	55.295	1.00	42.48
476	CA	HIS	A	672	56.279	42.870	54.089	1.00	42.62
477	CB	HIS	A	672	56.565	41.391	54.190	1.00	42.23
478	CG	HIS	A	672	57.524	40.981	53.156	1.00	47.30
479	ND1	HIS	A	672	57.142	40.782	51.825	1.00	46.67
480	CE1	HIS	A	672	58.240	40.523	51.126	1.00	45.98
481	NE2	HIS	A	672	59.289	40.519	51.949	1.00	44.11
482	CD2	HIS	A	672	58.874	40.826	53.214	1.00	45.01
483	C	HIS	A	672	55.513	43.134	52.819	1.00	42.33
484	O	HIS	A	672	54.388	42.761	52.732	1.00	41.57
485	N	HIS	A	673	56.192	43.697	51.819	1.00	42.80
486	CA	HIS	A	673	55.610	44.132	50.553	1.00	42.36
487	CB	HIS	A	673	56.722	44.316	49.548	1.00	38.97
488	CG	HIS	A	673	56.262	44.939	48.249	1.00	46.80
489	ND1	HIS	A	673	55.503	46.087	48.211	1.00	49.74
490	CE1	HIS	A	673	55.348	46.487	46.956	1.00	43.86
491	NE2	HIS	A	673	55.959	45.613	46.172	1.00	43.54
492	CD2	HIS	A	673	56.496	44.606	46.944	1.00	42.26
493	C	HIS	A	673	54.523	43.167	49.883	1.00	40.55
494	O	HIS	A	673	53.543	43.601	49.310	1.00	42.61
495	N	ASN	A	674	54.764	41.917	50.005	1.00	36.25
496	CA	ASN	A	674	54.035	40.894	49.374	1.00	38.32
497	CB	ASN	A	674	55.074	39.876	48.740	1.00	39.80
498	CG	ASN	A	674	55.870	40.509	47.607	1.00	36.97
499	OD1	ASN	A	674	55.321	40.897	46.582	1.00	35.65
500	ND2	ASN	A	674	57.139	40.728	47.847	1.00	37.21
501	C	ASN	A	674	53.281	40.177	50.440	1.00	38.05
502	O	ASN	A	674	53.058	38.944	50.288	1.00	37.79
503	N	ILE	A	675	52.996	40.886	51.586	1.00	38.03
504	CA	ILE	A	675	52.081	40.325	52.641	1.00	36.57
505	CB	ILE	A	675	52.790	40.111	53.920	1.00	36.46
506	CG1	ILE	A	675	53.903	39.127	53.672	1.00	33.71
507	CD1	ILE	A	675	53.464	37.726	53.483	1.00	35.15
508	CG2	ILE	A	675	51.921	39.461	54.965	1.00	31.06
509	C	ILE	A	675	50.979	41.344	52.797	1.00	38.05
510	O	ILE	A	675	51.256	42.562	52.869	1.00	35.21
511	N	ILE	A	676	49.724	40.902	52.661	1.00	37.36

FIGURE 3J

A	B	C	D	E	F	G	H	I	J
512	CA	ILE	A	676	48.617	41.868	52.857	1.00	37.03
513	CB	ILE	A	676	47.229	41.162	52.874	1.00	37.73
514	CG1	ILE	A	676	46.734	40.942	51.432	1.00	41.75
515	CD1	ILE	A	676	46.828	39.276	50.877	1.00	38.59
516	CG2	ILE	A	676	46.105	42.067	53.361	1.00	39.38
517	C	ILE	A	676	48.796	42.654	54.162	1.00	35.26
518	O	ILE	A	676	48.978	42.142	55.242	1.00	32.27
519	N	ARG	A	677	48.683	43.918	54.025	1.00	34.27
520	CA	ARG	A	677	48.910	44.789	55.101	1.00	36.19
521	CB	ARG	A	677	49.494	46.075	54.510	1.00	36.64
522	CG	ARG	A	677	49.536	47.178	55.599	1.00	41.64
523	CD	ARG	A	677	50.506	48.285	55.229	1.00	47.74
524	NE	ARG	A	677	49.825	49.350	54.572	1.00	53.55
525	CZ	ARG	A	677	49.795	49.516	53.246	1.00	61.80
526	NH1	ARG	A	677	50.425	48.610	52.436	1.00	54.93
527	NH2	ARG	A	677	49.096	50.568	52.734	1.00	55.75
528	C	ARG	A	677	47.670	45.163	55.876	1.00	35.14
529	O	ARG	A	677	46.723	45.624	55.334	1.00	37.56
530	N	LEU	A	678	47.670	44.907	57.161	1.00	36.98
531	CA	LEU	A	678	46.577	45.306	58.012	1.00	37.75
532	CB	LEU	A	678	46.636	44.533	59.287	1.00	37.13
533	CG	LEU	A	678	45.644	45.003	60.367	1.00	38.89
534	CD1	LEU	A	678	44.186	44.629	59.808	1.00	40.66
535	CD2	LEU	A	678	45.909	44.223	61.548	1.00	36.72
536	C	LEU	A	678	46.592	46.739	58.328	1.00	36.93
537	O	LEU	A	678	47.505	47.253	58.861	1.00	37.75
538	N	GLU	A	679	45.585	47.452	57.961	1.00	40.76
539	CA	GLU	A	679	45.583	48.829	58.351	1.00	41.67
540	CB	GLU	A	679	44.596	49.592	57.532	1.00	42.01
541	CG	GLU	A	679	45.045	49.720	56.088	1.00	43.00
542	CD	GLU	A	679	46.208	50.642	55.968	1.00	54.85
543	OE1	GLU	A	679	47.055	50.299	55.162	1.00	60.51
544	OE2	GLU	A	679	46.321	51.678	56.698	1.00	58.17
545	C	GLU	A	679	45.182	48.939	59.817	1.00	43.77
546	O	GLU	A	679	45.579	49.921	60.483	1.00	45.58
547	N	GLY	A	680	44.383	47.987	60.317	1.00	43.57
548	CA	GLY	A	680	43.778	48.130	61.635	1.00	43.39
549	C	GLY	A	680	42.428	47.436	61.718	1.00	43.49
550	O	GLY	A	680	41.870	46.994	60.730	1.00	43.61
551	N	VAL	A	681	41.917	47.300	62.921	1.00	43.77
552	CA	VAL	A	681	40.638	46.712	63.148	1.00	45.21
553	CB	VAL	A	681	40.739	45.577	64.095	1.00	44.87
554	CG1	VAL	A	681	41.831	44.596	63.645	1.00	46.36
555	CG2	VAL	A	681	41.163	46.141	65.458	1.00	48.19
556	C	VAL	A	681	39.714	47.667	63.826	1.00	47.24
557	O	VAL	A	681	40.146	48.697	64.420	1.00	49.54
558	N	ILE	A	682	38.444	47.292	63.827	1.00	47.38
559	CA	ILE	A	682	37.419	48.006	64.569	1.00	48.87
560	CB	ILE	A	682	36.375	48.569	63.710	1.00	48.22
561	CG1	ILE	A	682	36.958	49.768	62.995	1.00	48.43
562	CD1	ILE	A	682	35.994	50.531	62.288	1.00	44.35
563	CG2	ILE	A	682	35.350	49.079	64.642	1.00	51.05

FIGURE 3K

A	B	C	D	E	F	G	H	I	J
564	C	ILE	A	682	36.787	46.983	65.439	1.00	49.28
565	O	ILE	A	682	36.073	46.091	64.927	1.00	47.34
566	N	SER	A	683	37.128	47.028	66.720	1.00	49.45
567	CA	SER	A	683	36.611	46.043	67.629	1.00	52.94
568	CB	SER	A	683	37.745	45.283	68.237	1.00	52.37
569	OG	SER	A	683	38.501	46.148	69.035	1.00	57.12
570	C	SER	A	683	35.865	46.665	68.798	1.00	55.66
571	O	SER	A	683	35.285	45.961	69.632	1.00	56.40
572	N	LYS	A	684	35.893	47.987	68.884	1.00	57.01
573	CA	LYS	A	684	35.286	48.589	70.046	1.00	57.46
574	CB	LYS	A	684	36.154	49.729	70.595	1.00	56.07
575	CG	LYS	A	684	37.282	49.187	71.564	1.00	58.30
576	CD	LYS	A	684	38.630	49.925	71.446	1.00	58.07
577	CE	LYS	A	684	38.562	51.505	71.950	1.00	65.46
578	NZ	LYS	A	684	39.871	52.366	71.881	1.00	62.96
579	C	LYS	A	684	33.821	48.865	69.727	1.00	57.78
580	O	LYS	A	684	32.999	48.795	70.580	1.00	58.15
581	N	TYR	A	685	33.467	48.977	68.464	1.00	58.96
582	CA	TYR	A	685	32.075	49.289	68.086	1.00	59.96
583	CB	TYR	A	685	31.994	50.682	67.473	1.00	60.66
584	CG	TYR	A	685	32.713	51.794	68.195	1.00	63.95
585	CD1	TYR	A	685	32.081	53.033	68.444	1.00	68.40
586	CE1	TYR	A	685	32.793	54.105	69.056	1.00	72.55
587	CZ	TYR	A	685	34.165	53.916	69.401	1.00	73.82
588	OH	TYR	A	685	34.955	54.898	70.023	1.00	70.57
589	CE2	TYR	A	685	34.766	52.684	69.116	1.00	70.32
590	CD2	TYR	A	685	34.035	51.660	68.523	1.00	65.77
591	C	TYR	A	685	31.407	48.309	67.090	1.00	60.40
592	O	TYR	A	685	32.026	47.310	66.713	1.00	61.88
593	N	LYS	A	686	30.162	48.569	66.649	1.00	59.90
594	CA	LYS	A	686	29.579	47.680	65.656	1.00	58.82
595	CB	LYS	A	686	28.498	46.716	66.024	1.00	59.93
596	CG	LYS	A	686	29.096	45.424	66.530	1.00	59.37
597	CD	LYS	A	686	29.072	45.326	68.040	1.00	64.32
598	CE	LYS	A	686	30.146	46.244	68.676	1.00	67.97
599	NZ	LYS	A	686	30.718	45.703	69.957	1.00	66.41
600	C	LYS	A	686	29.658	47.859	64.242	1.00	59.00
601	O	LYS	A	686	29.403	48.925	63.673	1.00	61.49
602	N	PRO	A	687	29.432	46.717	63.735	1.00	56.91
603	CA	PRO	A	687	30.101	45.699	63.006	1.00	53.48
604	CB	PRO	A	687	29.846	46.015	61.546	1.00	55.46
605	CG	PRO	A	687	28.763	47.004	61.470	1.00	56.97
606	CD	PRO	A	687	28.593	47.506	62.796	1.00	57.11
607	C	PRO	A	687	31.572	45.851	63.404	1.00	50.95
608	O	PRO	A	687	32.164	46.919	63.374	1.00	49.51
609	N	MET	A	688	32.169	44.784	63.861	1.00	48.57
610	CA	MET	A	688	33.610	44.783	63.904	1.00	45.58
611	CB	MET	A	688	34.037	43.690	64.784	1.00	44.26
612	CG	MET	A	688	33.358	43.867	66.128	1.00	46.14
613	SD	MET	A	688	34.181	42.726	67.123	1.00	50.45
614	CE	MET	A	688	32.972	42.348	68.460	1.00	55.70
615	C	MET	A	688	34.060	44.576	62.442	1.00	45.64

FIGURE 3L

A	B	C	D	E	F	G	H	I	J
616	O	MET	A	688	33.364	43.928	61.647	1.00	43.85
617	N	MET	A	689	35.223	45.158	62.136	1.00	44.48
618	CA	MET	A	689	35.872	45.203	60.853	1.00	41.56
619	CB	MET	A	689	35.682	46.594	60.344	1.00	40.68
620	CG	MET	A	689	34.291	46.942	60.319	1.00	37.62
621	SD	MET	A	689	33.939	48.310	59.192	1.00	42.01
622	CE	MET	A	689	34.300	49.294	60.146	1.00	46.45
623	C	MET	A	689	37.362	44.919	60.908	1.00	41.69
624	O	MET	A	689	37.977	45.178	61.897	1.00	39.55
625	N	ILE	A	690	37.940	44.373	59.830	1.00	40.03
626	CA	ILE	A	690	39.410	44.156	59.726	1.00	38.46
627	CB	ILE	A	690	39.650	42.717	59.574	1.00	38.25
628	CG1	ILE	A	690	39.323	42.011	60.848	1.00	33.60
629	CD1	ILE	A	690	39.562	40.492	60.720	1.00	36.97
630	CG2	ILE	A	690	41.038	42.467	59.271	1.00	40.53
631	C	ILE	A	690	39.644	44.923	58.495	1.00	38.31
632	O	ILE	A	690	38.862	44.775	57.519	1.00	38.24
633	N	ILE	A	691	40.509	45.952	58.568	1.00	39.22
634	CA	ILE	A	691	40.764	46.894	57.444	1.00	36.53
635	CB	ILE	A	691	40.907	48.317	57.943	1.00	37.55
636	CG1	ILE	A	691	39.876	48.734	59.047	1.00	39.31
637	CD1	ILE	A	691	38.393	48.990	58.541	1.00	32.39
638	CG2	ILE	A	691	40.907	49.256	56.831	1.00	37.29
639	C	ILE	A	691	42.158	46.590	56.770	1.00	38.01
640	O	ILE	A	691	43.218	46.620	57.463	1.00	38.01
641	N	THR	A	692	42.182	46.381	55.445	1.00	37.20
642	CA	THR	A	692	43.445	46.080	54.734	1.00	36.47
643	CB	THR	A	692	43.566	44.593	54.387	1.00	35.20
644	OG1	THR	A	692	42.564	44.283	53.451	1.00	35.83
645	CG2	THR	A	692	43.156	43.824	55.543	1.00	30.57
646	C	THR	A	692	43.683	46.861	53.537	1.00	36.06
647	O	THR	A	692	42.841	47.599	53.075	1.00	37.50
648	N	GLU	A	693	44.893	46.762	53.018	1.00	36.84
649	CA	GLU	A	693	45.200	47.581	51.862	1.00	34.75
650	CB	GLU	A	693	46.688	47.414	51.456	1.00	34.83
651	CG	GLU	A	693	47.212	45.989	51.487	1.00	37.28
652	CD	GLU	A	693	48.611	45.888	50.934	1.00	40.39
653	OE1	GLU	A	693	49.308	44.958	51.275	1.00	45.33
654	OE2	GLU	A	693	49.039	46.754	50.177	1.00	38.27
655	C	GLU	A	693	44.262	47.082	50.823	1.00	35.09
656	O	GLU	A	693	43.970	45.920	50.773	1.00	36.98
657	N	TYR	A	694	43.698	47.978	50.038	1.00	36.62
658	CA	TYR	A	694	42.849	47.622	48.960	1.00	37.31
659	CB	TYR	A	694	42.179	48.887	48.452	1.00	37.54
660	CG	TYR	A	694	41.184	48.414	47.412	1.00	42.14
661	CD1	TYR	A	694	41.184	48.943	46.116	1.00	43.68
662	CE1	TYR	A	694	40.308	48.458	45.146	1.00	43.19
663	CZ	TYR	A	694	39.456	47.373	45.442	1.00	43.99
664	OH	TYR	A	694	38.543	46.885	44.453	1.00	50.45
665	CE2	TYR	A	694	39.497	46.773	46.700	1.00	45.46
666	CD2	TYR	A	694	40.400	47.254	47.673	1.00	43.35
667	C	TYR	A	694	43.600	46.896	47.705	1.00	37.33

FIGURE 3M

A	B	C	D	E	F	G	H	I	J
668	O	TYR	A	694	44.550	47.410	47.236	1.00	36.42
669	N	MET	A	695	43.211	45.693	47.297	1.00	36.44
670	CA	MET	A	695	43.873	45.008	46.147	1.00	38.70
671	CB	MET	A	695	44.266	43.583	46.553	1.00	36.76
672	CG	MET	A	695	45.185	43.564	47.793	1.00	36.63
673	SD	MET	A	695	46.870	44.267	47.620	1.00	38.01
674	CE	MET	A	695	47.436	42.869	46.677	1.00	33.07
675	C	MET	A	695	42.889	44.957	44.909	1.00	40.11
676	O	MET	A	695	42.039	44.111	44.843	1.00	42.18
677	N	GLU	A	696	43.005	45.883	43.975	1.00	40.26
678	CA	GLU	A	696	42.088	46.032	42.896	1.00	41.93
679	CB	GLU	A	696	42.712	46.973	41.893	1.00	43.18
680	CG	GLU	A	696	42.480	48.440	42.115	1.00	48.76
681	CD	GLU	A	696	41.565	48.937	40.999	1.00	58.48
682	OE1	GLU	A	696	40.566	48.194	40.663	1.00	63.90
683	OE2	GLU	A	696	41.916	50.017	40.443	1.00	62.65
684	C	GLU	A	696	41.889	44.764	42.103	1.00	41.93
685	O	GLU	A	696	40.789	44.446	41.706	1.00	44.34
686	N	ASN	A	697	42.922	43.979	41.880	1.00	39.85
687	CA	ASN	A	697	42.618	42.947	40.921	1.00	38.87
688	CB	ASN	A	697	43.808	42.705	39.966	1.00	38.40
689	CG	ASN	A	697	43.812	43.672	38.784	1.00	40.20
690	OD1	ASN	A	697	44.849	44.178	38.347	1.00	44.17
691	ND2	ASN	A	697	42.558	43.959	38.269	1.00	45.86
692	C	ASN	A	697	42.157	41.756	41.647	1.00	37.90
693	O	ASN	A	697	41.992	40.689	41.026	1.00	39.69
694	N	GLY	A	698	42.062	41.848	42.992	1.00	33.49
695	CA	GLY	A	698	41.403	40.701	43.621	1.00	28.87
696	C	GLY	A	698	42.204	39.491	43.680	1.00	29.77
697	O	GLY	A	698	43.383	39.592	43.682	1.00	29.55
698	N	ALA	A	699	41.559	38.342	43.701	1.00	29.72
699	CA	ALA	A	699	42.186	37.154	43.998	1.00	29.38
700	CB	ALA	A	699	41.204	36.198	44.395	1.00	26.29
701	C	ALA	A	699	42.995	36.675	42.794	1.00	33.59
702	O	ALA	A	699	42.596	36.859	41.676	1.00	31.03
703	N	LEU	A	700	44.050	35.887	43.011	1.00	34.21
704	CA	LEU	A	700	44.921	35.788	41.802	1.00	34.10
705	CB	LEU	A	700	46.407	35.560	42.179	1.00	32.00
706	CG	LEU	A	700	47.319	34.761	41.280	1.00	31.11
707	CD1	LEU	A	700	47.764	35.687	40.259	1.00	28.00
708	CD2	LEU	A	700	48.550	34.238	42.076	1.00	28.60
709	C	LEU	A	700	44.409	34.800	40.866	1.00	33.32
710	O	LEU	A	700	44.504	35.041	39.691	1.00	33.33
711	N	ASP	A	701	43.814	33.697	41.348	1.00	34.11
712	CA	ASP	A	701	43.402	32.617	40.406	1.00	35.12
713	CB	ASP	A	701	42.894	31.383	41.064	1.00	33.80
714	CG	ASP	A	701	41.715	31.594	41.891	1.00	34.53
715	OD1	ASP	A	701	41.531	32.676	42.421	1.00	30.09
716	OD2	ASP	A	701	40.923	30.670	42.118	1.00	37.42
717	C	ASP	A	701	42.326	33.068	39.463	1.00	36.51
718	O	ASP	A	701	42.123	32.568	38.350	1.00	37.86
719	N	LYS	A	702	41.562	34.003	39.970	1.00	37.59

FIGURE 3N

A	B	C	D	E	F	G	H	I	J
720	CA	LYS	A	702	40.659	34.530	39.118	1.00	36.66
721	CB	LYS	A	702	39.348	34.752	39.976	1.00	39.28
722	CG	LYS	A	702	38.479	35.942	39.600	1.00	40.13
723	CD	LYS	A	702	37.311	36.218	40.641	1.00	56.19
724	CE	LYS	A	702	35.951	36.757	40.026	1.00	59.70
725	NZ	LYS	A	702	35.195	35.733	39.227	1.00	67.51
726	C	LYS	A	702	40.878	35.646	38.132	1.00	35.74
727	O	LYS	A	702	40.206	35.681	37.082	1.00	37.89
728	N	PHE	A	703	41.549	36.665	38.605	1.00	33.13
729	CA	PHE	A	703	42.200	37.643	37.765	1.00	36.62
730	CB	PHE	A	703	43.332	38.312	38.567	1.00	34.46
731	CG	PHE	A	703	44.012	39.505	37.876	1.00	38.02
732	CD1	PHE	A	703	43.177	40.498	37.330	1.00	25.27
733	CE1	PHE	A	703	43.732	41.626	36.757	1.00	33.70
734	CZ	PHE	A	703	45.135	41.763	36.641	1.00	34.23
735	CE2	PHE	A	703	45.994	40.790	37.203	1.00	37.20
736	CD2	PHE	A	703	45.473	39.665	37.808	1.00	29.52
737	C	PHE	A	703	42.876	36.911	36.599	1.00	35.72
738	O	PHE	A	703	42.629	37.269	35.553	1.00	37.70
739	N	LEU	A	704	43.688	35.901	36.842	1.00	33.99
740	CA	LEU	A	704	44.382	35.252	35.803	1.00	34.00
741	CB	LEU	A	704	45.213	34.181	36.373	1.00	32.88
742	CG	LEU	A	704	46.458	34.749	37.087	1.00	36.11
743	CD1	LEU	A	704	47.352	33.579	37.374	1.00	37.94
744	CD2	LEU	A	704	47.195	36.016	36.306	1.00	37.86
745	C	LEU	A	704	43.422	34.649	34.912	1.00	36.85
746	O	LEU	A	704	43.715	34.499	33.721	1.00	35.55
747	N	ARG	A	705	42.236	34.267	35.435	1.00	38.22
748	CA	ARG	A	705	41.330	33.575	34.495	1.00	38.60
749	CB	ARG	A	705	40.284	32.784	35.157	1.00	37.82
750	CG	ARG	A	705	40.854	31.540	35.460	1.00	40.12
751	CD	ARG	A	705	39.889	30.555	35.686	1.00	40.84
752	NE	ARG	A	705	39.223	30.917	36.889	1.00	40.80
753	CZ	ARG	A	705	39.621	30.530	38.094	1.00	48.75
754	NH1	ARG	A	705	38.912	30.876	39.157	1.00	41.80
755	NH2	ARG	A	705	40.700	29.778	38.239	1.00	48.73
756	C	ARG	A	705	40.673	34.528	33.555	1.00	38.66
757	O	ARG	A	705	40.320	34.170	32.473	1.00	40.65
758	N	GLU	A	706	40.500	35.728	34.028	1.00	38.10
759	CA	GLU	A	706	39.969	36.744	33.282	1.00	40.40
760	CB	GLU	A	706	39.517	37.804	34.231	1.00	40.22
761	CG	GLU	A	706	38.247	37.363	34.881	1.00	50.24
762	CD	GLU	A	706	37.786	38.278	36.015	1.00	60.71
763	OE1	GLU	A	706	36.711	37.952	36.578	1.00	61.83
764	OE2	GLU	A	706	38.517	39.275	36.357	1.00	64.44
765	C	GLU	A	706	40.921	37.385	32.278	1.00	38.37
766	O	GLU	A	706	40.495	38.051	31.411	1.00	40.23
767	N	LYS	A	707	42.197	37.278	32.465	1.00	37.18
768	CA	LYS	A	707	43.145	38.027	31.602	1.00	35.98
769	CB	LYS	A	707	44.085	38.856	32.502	1.00	36.31
770	CG	LYS	A	707	43.436	40.070	33.159	1.00	31.25
771	CD	LYS	A	707	42.537	40.850	32.178	1.00	41.00

FIGURE 3O

A	B	C	D	E	F	G	H	I	J
772	CE	LYS	A	707	41.828	42.152	32.801	1.00	43.91
773	NZ	LYS	A	707	42.468	43.446	32.199	1.00	46.63
774	C	LYS	A	707	43.963	36.986	30.907	1.00	34.83
775	O	LYS	A	707	45.140	37.112	30.851	1.00	31.51
776	N	ASP	A	708	43.310	35.854	30.599	1.00	34.02
777	CA	ASP	A	708	43.961	34.687	30.142	1.00	34.42
778	CB	ASP	A	708	42.937	33.630	29.906	1.00	35.74
779	CG	ASP	A	708	43.549	32.340	29.318	1.00	37.91
780	OD1	ASP	A	708	44.713	32.065	29.373	1.00	46.66
781	OD2	ASP	A	708	42.940	31.505	28.741	1.00	51.37
782	C	ASP	A	708	44.823	34.932	28.843	1.00	33.85
783	O	ASP	A	708	44.332	35.563	27.880	1.00	33.03
784	N	GLY	A	709	46.076	34.438	28.842	1.00	32.14
785	CA	GLY	A	709	46.985	34.781	27.796	1.00	32.46
786	C	GLY	A	709	47.341	36.273	27.734	1.00	33.50
787	O	GLY	A	709	48.010	36.740	26.849	1.00	32.44
788	N	GLU	A	710	47.011	37.043	28.715	1.00	33.77
789	CA	GLU	A	710	47.365	38.445	28.521	1.00	35.02
790	CB	GLU	A	710	46.198	39.448	28.823	1.00	34.74
791	CG	GLU	A	710	44.870	39.054	28.228	1.00	33.49
792	CD	GLU	A	710	43.843	40.107	28.521	1.00	41.03
793	OE1	GLU	A	710	44.173	41.360	28.693	1.00	44.53
794	OE2	GLU	A	710	42.704	39.661	28.521	1.00	38.77
795	C	GLU	A	710	48.602	39.017	29.221	1.00	36.64
796	O	GLU	A	710	48.820	40.227	29.192	1.00	34.62
797	N	PHE	A	711	49.403	38.185	29.832	1.00	37.09
798	CA	PHE	A	711	50.510	38.792	30.525	1.00	37.88
799	CB	PHE	A	711	50.414	38.384	32.039	1.00	38.28
800	CG	PHE	A	711	49.322	39.225	32.812	1.00	38.60
801	CD1	PHE	A	711	48.302	38.610	33.509	1.00	38.93
802	CE1	PHE	A	711	47.359	39.316	34.196	1.00	36.81
803	CZ	PHE	A	711	47.377	40.696	34.129	1.00	43.70
804	CE2	PHE	A	711	48.361	41.361	33.378	1.00	42.48
805	CD2	PHE	A	711	49.320	40.609	32.722	1.00	36.32
806	C	PHE	A	711	51.731	38.237	29.795	1.00	38.37
807	O	PHE	A	711	51.653	37.191	29.189	1.00	38.38
808	N	SER	A	712	52.829	38.954	29.832	1.00	37.51
809	CA	SER	A	712	54.054	38.463	29.318	1.00	37.68
810	CB	SER	A	712	55.019	39.640	29.207	1.00	33.41
811	OG	SER	A	712	55.482	39.865	30.488	1.00	38.72
812	C	SER	A	712	54.533	37.373	30.343	1.00	38.11
813	O	SER	A	712	54.143	37.370	31.560	1.00	36.94
814	N	VAL	A	713	55.345	36.430	29.853	1.00	36.56
815	CA	VAL	A	713	55.970	35.463	30.743	1.00	38.74
816	CB	VAL	A	713	56.860	34.555	29.902	1.00	40.25
817	CG1	VAL	A	713	57.880	33.741	30.734	1.00	40.91
818	CG2	VAL	A	713	55.973	33.661	29.047	1.00	46.85
819	C	VAL	A	713	56.820	36.172	31.891	1.00	38.93
820	O	VAL	A	713	57.034	35.653	33.003	1.00	38.80
821	N	LEU	A	714	57.279	37.366	31.621	1.00	38.01
822	CA	LEU	A	714	58.081	38.031	32.613	1.00	40.96
823	CB	LEU	A	714	58.951	39.068	31.898	1.00	40.30

FIGURE 3P

A	B	C	D	E	F	G	H	I	J
824	CG	LEU	A	714	60.120	39.781	32.561	1.00	45.88
825	CD1	LEU	A	714	61.094	38.833	33.052	1.00	46.43
826	CD2	LEU	A	714	60.780	41.002	31.669	1.00	38.74
827	C	LEU	A	714	57.168	38.638	33.698	1.00	40.29
828	O	LEU	A	714	57.505	38.570	34.844	1.00	44.01
829	N	GLN	A	715	55.998	39.165	33.341	1.00	39.22
830	CA	GLN	A	715	55.001	39.613	34.321	1.00	36.85
831	CB	GLN	A	715	53.868	40.332	33.636	1.00	38.50
832	CG	GLN	A	715	54.218	41.672	33.012	1.00	29.96
833	CD	GLN	A	715	53.075	42.067	32.167	1.00	28.87
834	OE1	GLN	A	715	52.617	41.293	31.387	1.00	32.88
835	NE2	GLN	A	715	52.490	43.193	32.455	1.00	33.61
836	C	GLN	A	715	54.509	38.407	35.125	1.00	36.09
837	O	GLN	A	715	54.324	38.479	36.350	1.00	38.22
838	N	LEU	A	716	54.447	37.245	34.514	1.00	34.64
839	CA	LEU	A	716	54.000	36.106	35.305	1.00	34.14
840	CB	LEU	A	716	53.658	34.883	34.441	1.00	33.25
841	CG	LEU	A	716	52.373	35.072	33.597	1.00	34.69
842	CD1	LEU	A	716	52.021	33.922	32.684	1.00	40.42
843	CD2	LEU	A	716	51.151	35.391	34.465	1.00	35.13
844	C	LEU	A	716	55.008	35.742	36.325	1.00	36.34
845	O	LEU	A	716	54.687	35.526	37.487	1.00	38.96
846	N	VAL	A	717	56.247	35.640	35.901	1.00	35.71
847	CA	VAL	A	717	57.282	35.173	36.716	1.00	33.91
848	CB	VAL	A	717	58.571	35.031	35.931	1.00	35.17
849	CG1	VAL	A	717	59.687	34.711	36.866	1.00	29.77
850	CG2	VAL	A	717	58.367	33.983	34.852	1.00	38.75
851	C	VAL	A	717	57.580	36.125	37.850	1.00	33.83
852	O	VAL	A	717	57.880	35.699	38.947	1.00	31.28
853	N	GLY	A	718	57.534	37.416	37.555	1.00	31.97
854	CA	GLY	A	718	57.503	38.426	38.592	1.00	35.27
855	C	GLY	A	718	56.292	38.282	39.565	1.00	36.66
856	O	GLY	A	718	56.491	38.537	40.791	1.00	39.82
857	N	MET	A	719	55.089	37.891	39.114	1.00	35.07
858	CA	MET	A	719	54.036	37.707	40.103	1.00	34.57
859	CB	MET	A	719	52.605	37.454	39.502	1.00	34.98
860	CG	MET	A	719	52.011	38.624	38.740	1.00	38.87
861	SD	MET	A	719	50.791	38.025	37.564	1.00	43.45
862	CE	MET	A	719	50.085	39.579	36.958	1.00	37.28
863	C	MET	A	719	54.549	36.568	40.960	1.00	34.85
864	O	MET	A	719	54.303	36.521	42.201	1.00	34.62
865	N	LEU	A	720	55.287	35.643	40.362	1.00	33.93
866	CA	LEU	A	720	55.655	34.523	41.175	1.00	35.01
867	CB	LEU	A	720	56.042	33.265	40.370	1.00	34.91
868	CG	LEU	A	720	54.807	32.554	39.778	1.00	41.19
869	CD1	LEU	A	720	55.348	31.681	38.652	1.00	33.86
870	CD2	LEU	A	720	54.125	31.703	40.866	1.00	35.22
871	C	LEU	A	720	56.796	34.940	42.127	1.00	34.33
872	O	LEU	A	720	56.915	34.341	43.175	1.00	33.94
873	N	ARG	A	721	57.633	35.906	41.741	1.00	35.51
874	CA	ARG	A	721	58.698	36.200	42.637	1.00	37.80
875	CB	ARG	A	721	59.987	36.862	42.044	1.00	38.19

FIGURE 3Q

A	B	C	D	E	F	G	H	I	J
876	CG	ARG	A	721	60.314	38.329	42.432	1.00	43.45
877	CD	ARG	A	721	61.699	38.652	43.075	1.00	44.68
878	NE	ARG	A	721	61.671	39.968	43.738	1.00	46.01
879	CZ	ARG	A	721	62.115	40.223	45.005	1.00	47.92
880	NH1	ARG	A	721	62.690	39.297	45.760	1.00	42.62
881	NH2	ARG	A	721	62.011	41.426	45.507	1.00	42.77
882	C	ARG	A	721	58.073	36.904	43.840	1.00	35.74
883	O	ARG	A	721	58.397	36.583	44.921	1.00	36.27
884	N	GLY	A	722	57.028	37.678	43.635	1.00	36.52
885	CA	GLY	A	722	56.397	38.422	44.757	1.00	33.29
886	C	GLY	A	722	55.861	37.381	45.691	1.00	32.31
887	O	GLY	A	722	56.178	37.333	46.854	1.00	33.65
888	N	ILE	A	723	54.965	36.546	45.211	1.00	30.16
889	CA	ILE	A	723	54.543	35.518	46.137	1.00	30.15
890	CB	ILE	A	723	53.772	34.400	45.387	1.00	29.03
891	CG1	ILE	A	723	52.614	35.088	44.763	1.00	28.74
892	CD1	ILE	A	723	51.890	34.311	43.667	1.00	22.43
893	CG2	ILE	A	723	53.270	33.347	46.367	1.00	23.88
894	C	ILE	A	723	55.682	34.939	46.875	1.00	29.85
895	O	ILE	A	723	55.643	34.733	48.086	1.00	28.93
896	N	ALA	A	724	56.673	34.526	46.105	1.00	30.46
897	CA	ALA	A	724	57.762	33.758	46.736	1.00	30.64
898	CB	ALA	A	724	58.778	33.564	45.694	1.00	32.41
899	C	ALA	A	724	58.469	34.553	47.912	1.00	29.69
900	O	ALA	A	724	58.762	34.063	49.021	1.00	26.55
901	N	ALA	A	725	58.746	35.770	47.606	1.00	27.76
902	CA	ALA	A	725	59.310	36.650	48.550	1.00	30.34
903	CB	ALA	A	725	59.330	38.044	47.843	1.00	29.68
904	C	ALA	A	725	58.500	36.648	49.943	1.00	32.46
905	O	ALA	A	725	59.049	36.269	51.069	1.00	32.65
906	N	GLY	A	726	57.186	36.806	49.778	1.00	31.30
907	CA	GLY	A	726	56.280	36.858	50.888	1.00	32.69
908	C	GLY	A	726	56.416	35.599	51.565	1.00	34.43
909	O	GLY	A	726	56.515	35.595	52.766	1.00	37.79
910	N	MET	A	727	56.508	34.533	50.825	1.00	33.96
911	CA	MET	A	727	56.597	33.296	51.482	1.00	36.78
912	CB	MET	A	727	56.397	32.063	50.534	1.00	38.17
913	CG	MET	A	727	55.028	31.722	50.128	1.00	35.85
914	SD	MET	A	727	53.739	31.892	51.569	1.00	33.45
915	CE	MET	A	727	53.924	30.327	52.256	1.00	30.52
916	C	MET	A	727	58.004	33.177	52.095	1.00	40.08
917	O	MET	A	727	58.132	32.402	52.994	1.00	40.52
918	N	LYS	A	728	59.049	33.876	51.607	1.00	41.82
919	CA	LYS	A	728	60.369	33.753	52.222	1.00	43.04
920	CB	LYS	A	728	61.552	34.367	51.426	1.00	42.93
921	CG	LYS	A	728	62.851	34.461	52.374	1.00	45.08
922	CD	LYS	A	728	64.269	34.813	51.788	1.00	48.13
923	CE	LYS	A	728	65.367	34.940	52.974	1.00	60.10
924	NZ	LYS	A	728	65.965	33.765	53.965	1.00	59.07
925	C	LYS	A	728	60.220	34.506	53.629	1.00	43.72
926	O	LYS	A	728	60.732	34.080	54.703	1.00	42.16
927	N	TYR	A	729	59.566	35.633	53.588	1.00	41.05

FIGURE 3R

A	B	C	D	E	F	G	H	I	J
928	CA	TYR	A	729	59.283	36.265	54.861	1.00	40.26
929	CB	TYR	A	729	58.511	37.417	54.525	1.00	36.34
930	CG	TYR	A	729	58.276	38.219	55.647	1.00	43.34
931	CD1	TYR	A	729	59.290	39.022	56.234	1.00	41.12
932	CE1	TYR	A	729	58.907	39.900	57.404	1.00	41.14
933	CZ	TYR	A	729	57.600	39.837	57.863	1.00	41.39
934	OH	TYR	A	729	56.977	40.579	58.883	1.00	40.30
935	CE2	TYR	A	729	56.672	38.976	57.197	1.00	40.74
936	CD2	TYR	A	729	56.985	38.255	56.187	1.00	36.09
937	C	TYR	A	729	58.534	35.355	55.862	1.00	42.10
938	O	TYR	A	729	58.996	35.098	57.035	1.00	41.89
939	N	LEU	A	730	57.379	34.814	55.422	1.00	42.02
940	CA	LEU	A	730	56.704	33.992	56.335	1.00	39.74
941	CB	LEU	A	730	55.411	33.422	55.779	1.00	38.11
942	CG	LEU	A	730	54.356	34.521	55.426	1.00	39.93
943	CD1	LEU	A	730	53.208	33.851	54.731	1.00	30.48
944	CD2	LEU	A	730	53.843	35.522	56.628	1.00	36.84
945	C	LEU	A	730	57.615	32.961	56.868	1.00	40.93
946	O	LEU	A	730	57.590	32.614	58.097	1.00	44.06
947	N	ALA	A	731	58.379	32.366	56.000	1.00	41.66
948	CA	ALA	A	731	59.128	31.219	56.482	1.00	43.27
949	CB	ALA	A	731	59.665	30.304	55.365	1.00	42.98
950	C	ALA	A	731	60.252	31.695	57.426	1.00	43.66
951	O	ALA	A	731	60.645	31.018	58.306	1.00	44.04
952	N	ASN	A	732	60.709	32.885	57.279	1.00	44.35
953	CA	ASN	A	732	61.713	33.276	58.220	1.00	46.81
954	CB	ASN	A	732	62.560	34.350	57.600	1.00	43.35
955	CG	ASN	A	732	63.616	33.729	56.588	1.00	48.96
956	OD1	ASN	A	732	63.954	32.507	56.609	1.00	49.17
957	ND2	ASN	A	732	64.077	34.565	55.670	1.00	51.65
958	C	ASN	A	732	61.050	33.532	59.645	1.00	47.03
959	O	ASN	A	732	61.593	33.105	60.645	1.00	47.94
960	N	MET	A	733	59.861	34.149	59.686	1.00	47.68
961	CA	MET	A	733	59.083	34.350	60.880	1.00	45.27
962	CB	MET	A	733	57.872	35.218	60.694	1.00	43.96
963	CG	MET	A	733	58.018	36.674	60.281	1.00	48.30
964	SD	MET	A	733	59.136	37.666	61.268	1.00	58.32
965	CE	MET	A	733	58.421	37.372	62.740	1.00	52.36
966	C	MET	A	733	58.590	33.013	61.346	1.00	45.93
967	O	MET	A	733	57.762	32.977	62.179	1.00	46.67
968	N	ASN	A	734	59.121	31.890	60.885	1.00	46.78
969	CA	ASN	A	734	58.546	30.632	61.341	1.00	47.20
970	CB	ASN	A	734	58.754	30.384	62.828	1.00	50.07
971	CG	ASN	A	734	60.243	30.038	63.145	1.00	56.81
972	OD1	ASN	A	734	60.886	30.656	64.048	1.00	57.16
973	ND2	ASN	A	734	60.803	29.077	62.372	1.00	59.81
974	C	ASN	A	734	57.069	30.458	61.090	1.00	45.73
975	O	ASN	A	734	56.373	29.743	61.797	1.00	43.13
976	N	TYR	A	735	56.542	31.043	60.042	1.00	44.71
977	CA	TYR	A	735	55.107	30.822	60.011	1.00	43.29
978	CB	TYR	A	735	54.443	32.126	59.921	1.00	42.22
979	CG	TYR	A	735	53.029	32.009	59.724	1.00	41.13

FIGURE 3S

A	B	C	D	E	F	G	H	I	J
980	CD1	TYR	A	735	52.152	32.131	60.814	1.00	40.42
981	CE1	TYR	A	735	50.811	32.085	60.664	1.00	47.06
982	CZ	TYR	A	735	50.271	31.907	59.374	1.00	47.34
983	OH	TYR	A	735	48.915	31.764	59.227	1.00	46.64
984	CE2	TYR	A	735	51.155	31.732	58.239	1.00	47.89
985	CD2	TYR	A	735	52.528	31.829	58.447	1.00	42.90
986	C	TYR	A	735	54.792	29.913	58.861	1.00	41.63
987	O	TYR	A	735	55.164	30.186	57.742	1.00	42.29
988	N	VAL	A	736	54.158	28.820	59.140	1.00	38.41
989	CA	VAL	A	736	53.937	27.923	58.084	1.00	39.18
990	CB	VAL	A	736	53.963	26.643	58.559	1.00	38.60
991	CG1	VAL	A	736	53.334	25.786	57.440	1.00	44.99
992	CG2	VAL	A	736	55.465	26.273	59.020	1.00	41.99
993	C	VAL	A	736	52.508	28.121	57.602	1.00	40.83
994	O	VAL	A	736	51.554	27.827	58.342	1.00	37.18
995	N	HIS	A	737	52.358	28.570	56.348	1.00	38.45
996	CA	HIS	A	737	51.076	29.014	55.969	1.00	38.83
997	CB	HIS	A	737	51.218	29.539	54.599	1.00	40.55
998	CG	HIS	A	737	50.007	30.193	54.135	1.00	33.42
999	ND1	HIS	A	737	48.855	29.463	53.856	1.00	35.99
1000	CE1	HIS	A	737	47.910	30.315	53.492	1.00	39.74
1001	NE2	HIS	A	737	48.385	31.563	53.591	1.00	33.63
1002	CD2	HIS	A	737	49.695	31.497	54.039	1.00	31.88
1003	C	HIS	A	737	49.993	28.008	55.933	1.00	41.07
1004	O	HIS	A	737	48.797	28.237	56.357	1.00	44.04
1005	N	ARG	A	738	50.376	26.934	55.306	1.00	41.15
1006	CA	ARG	A	738	49.618	25.687	55.197	1.00	40.70
1007	CB	ARG	A	738	48.940	25.402	56.513	1.00	42.80
1008	CG	ARG	A	738	49.697	24.932	57.725	1.00	45.84
1009	CD	ARG	A	738	48.687	24.798	58.849	1.00	53.31
1010	NE	ARG	A	738	49.009	23.892	59.954	1.00	67.74
1011	CZ	ARG	A	738	48.085	23.420	60.827	1.00	72.67
1012	NH1	ARG	A	738	46.820	23.728	60.649	1.00	73.68
1013	NH2	ARG	A	738	48.410	22.631	61.865	1.00	72.81
1014	C	ARG	A	738	48.515	25.670	54.118	1.00	38.77
1015	O	ARG	A	738	47.921	24.641	53.870	1.00	38.45
1016	N	ASP	A	739	48.177	26.788	53.516	1.00	36.53
1017	CA	ASP	A	739	47.072	26.753	52.631	1.00	36.55
1018	CB	ASP	A	739	45.883	27.404	53.377	1.00	39.05
1019	CG	ASP	A	739	44.538	27.308	52.614	1.00	42.96
1020	OD1	ASP	A	739	43.754	28.312	52.665	1.00	43.61
1021	OD2	ASP	A	739	44.148	26.255	52.038	1.00	39.35
1022	C	ASP	A	739	47.535	27.617	51.504	1.00	36.75
1023	O	ASP	A	739	46.777	28.532	50.983	1.00	36.19
1024	N	LEU	A	740	48.780	27.439	51.069	1.00	33.43
1025	CA	LEU	A	740	49.061	28.504	50.134	1.00	33.57
1026	CB	LEU	A	740	50.481	28.864	50.075	1.00	33.24
1027	CG	LEU	A	740	50.940	29.335	48.750	1.00	31.68
1028	CD1	LEU	A	740	50.941	30.966	48.641	1.00	25.60
1029	CD2	LEU	A	740	52.323	28.912	48.706	1.00	23.37
1030	C	LEU	A	740	48.490	28.150	48.796	1.00	33.56
1031	O	LEU	A	740	48.501	26.963	48.357	1.00	31.12

FIGURE 3T

A	B	C	D	E	F	G	H	I	J
1032	N	ALA	A	741	47.907	29.154	48.172	1.00	32.21
1033	CA	ALA	A	741	47.206	28.832	46.941	1.00	31.18
1034	CB	ALA	A	741	45.926	27.914	47.257	1.00	29.26
1035	C	ALA	A	741	46.846	29.993	46.143	1.00	29.34
1036	O	ALA	A	741	46.668	31.011	46.680	1.00	33.20
1037	N	ALA	A	742	46.670	29.881	44.843	1.00	30.74
1038	CA	ALA	A	742	46.506	31.125	44.116	1.00	30.53
1039	CB	ALA	A	742	46.415	30.932	42.505	1.00	29.25
1040	C	ALA	A	742	45.285	31.834	44.608	1.00	29.77
1041	O	ALA	A	742	45.243	33.003	44.528	1.00	31.53
1042	N	ARG	A	743	44.245	31.119	44.944	1.00	30.98
1043	CA	ARG	A	743	43.077	31.884	45.424	1.00	34.86
1044	CB	ARG	A	743	41.863	30.923	45.700	1.00	34.10
1045	CG	ARG	A	743	42.121	30.047	46.920	1.00	34.44
1046	CD	ARG	A	743	41.108	28.958	47.187	1.00	39.03
1047	NE	ARG	A	743	41.222	28.546	48.614	1.00	45.39
1048	CZ	ARG	A	743	41.915	27.457	49.044	1.00	48.15
1049	NH1	ARG	A	743	42.514	26.617	48.179	1.00	45.40
1050	NH2	ARG	A	743	42.006	27.199	50.343	1.00	47.01
1051	C	ARG	A	743	43.400	32.651	46.746	1.00	35.27
1052	O	ARG	A	743	42.567	33.390	47.192	1.00	35.06
1053	N	ASN	A	744	44.557	32.422	47.395	1.00	34.09
1054	CA	ASN	A	744	44.801	33.215	48.540	1.00	33.38
1055	CB	ASN	A	744	45.131	32.369	49.740	1.00	37.53
1056	CG	ASN	A	744	43.885	31.484	50.204	1.00	39.21
1057	OD1	ASN	A	744	42.750	31.939	50.226	1.00	42.62
1058	ND2	ASN	A	744	44.146	30.287	50.555	1.00	40.51
1059	C	ASN	A	744	45.837	34.214	48.356	1.00	33.36
1060	O	ASN	A	744	46.457	34.589	49.341	1.00	35.07
1061	N	ILE	A	745	46.006	34.705	47.117	1.00	30.57
1062	CA	ILE	A	745	46.897	35.733	46.854	1.00	28.67
1063	CB	ILE	A	745	47.832	35.223	45.714	1.00	30.71
1064	CG1	ILE	A	745	48.559	33.935	46.089	1.00	35.04
1065	CD1	ILE	A	745	49.267	33.990	47.383	1.00	35.54
1066	CG2	ILE	A	745	48.729	36.302	45.150	1.00	24.18
1067	C	ILE	A	745	46.035	36.788	46.288	1.00	29.43
1068	O	ILE	A	745	45.130	36.504	45.501	1.00	31.60
1069	N	LEU	A	746	46.311	38.021	46.582	1.00	27.98
1070	CA	LEU	A	746	45.533	39.043	46.041	1.00	30.08
1071	CB	LEU	A	746	45.083	39.943	47.195	1.00	33.28
1072	CG	LEU	A	746	43.629	39.785	47.648	1.00	33.99
1073	CD1	LEU	A	746	43.198	38.419	47.277	1.00	41.53
1074	CD2	LEU	A	746	43.681	39.973	49.163	1.00	38.93
1075	C	LEU	A	746	46.416	39.870	45.214	1.00	31.34
1076	O	LEU	A	746	47.672	39.863	45.411	1.00	33.08
1077	N	VAL	A	747	45.863	40.732	44.393	1.00	32.95
1078	CA	VAL	A	747	46.775	41.316	43.368	1.00	33.35
1079	CB	VAL	A	747	46.535	40.592	41.936	1.00	34.25
1080	CG1	VAL	A	747	47.470	41.171	40.731	1.00	32.32
1081	CG2	VAL	A	747	46.731	39.130	42.052	1.00	28.68
1082	C	VAL	A	747	46.354	42.728	43.243	1.00	35.15
1083	O	VAL	A	747	45.192	43.035	43.182	1.00	36.61

FIGURE 3U

A	B	C	D	E	F	G	H	I	J
1084	N	ASN	A	748	47.265	43.612	43.005	1.00	38.24
1085	CA	ASN	A	748	46.877	45.028	42.924	1.00	38.34
1086	CB	ASN	A	748	47.567	45.802	44.082	1.00	36.64
1087	CG	ASN	A	748	49.029	46.025	43.866	1.00	41.61
1088	OD1	ASN	A	748	49.862	46.322	44.892	1.00	43.62
1089	ND2	ASN	A	748	49.440	45.937	42.561	1.00	30.49
1090	C	ASN	A	748	47.108	45.643	41.577	1.00	39.45
1091	O	ASN	A	748	47.639	44.987	40.711	1.00	40.04
1092	N	SER	A	749	46.695	46.895	41.373	1.00	42.73
1093	CA	SER	A	749	46.786	47.496	40.099	1.00	46.89
1094	CB	SER	A	749	46.385	48.978	40.082	1.00	48.87
1095	OG	SER	A	749	45.668	49.315	41.225	1.00	54.36
1096	C	SER	A	749	48.144	47.270	39.473	1.00	47.52
1097	O	SER	A	749	48.120	47.006	38.275	1.00	50.51
1098	N	ASN	A	750	49.269	47.369	40.208	1.00	45.78
1099	CA	ASN	A	750	50.564	47.075	39.586	1.00	45.35
1100	CB	ASN	A	750	51.653	47.880	40.233	1.00	46.42
1101	CG	ASN	A	750	51.353	49.378	40.146	1.00	52.77
1102	OD1	ASN	A	750	50.799	49.871	39.111	1.00	54.71
1103	ND2	ASN	A	750	51.556	50.090	41.283	1.00	54.86
1104	C	ASN	A	750	50.867	45.596	39.508	1.00	45.29
1105	O	ASN	A	750	51.983	45.229	39.197	1.00	47.66
1106	N	LEU	A	751	49.900	44.715	39.759	1.00	43.51
1107	CA	LEU	A	751	50.329	43.316	39.610	1.00	41.03
1108	CB	LEU	A	751	50.906	43.089	38.217	1.00	38.31
1109	CG	LEU	A	751	50.061	43.748	37.120	1.00	41.64
1110	CD1	LEU	A	751	50.758	43.503	35.751	1.00	38.27
1111	CD2	LEU	A	751	48.627	43.252	36.999	1.00	28.14
1112	C	LEU	A	751	51.261	42.713	40.682	1.00	38.95
1113	O	LEU	A	751	51.616	41.503	40.614	1.00	39.08
1114	N	VAL	A	752	51.532	43.481	41.722	1.00	38.48
1115	CA	VAL	A	752	52.201	42.927	42.911	1.00	37.62
1116	CB	VAL	A	752	52.407	44.027	43.985	1.00	41.07
1117	CG1	VAL	A	752	52.935	43.433	45.248	1.00	31.93
1118	CG2	VAL	A	752	53.374	45.187	43.434	1.00	39.70
1119	C	VAL	A	752	51.212	41.969	43.535	1.00	36.23
1120	O	VAL	A	752	50.109	42.327	43.656	1.00	37.11
1121	N	CYS	A	753	51.624	40.762	43.833	1.00	33.42
1122	CA	CYS	A	753	50.883	39.701	44.373	1.00	32.01
1123	CB	CYS	A	753	51.362	38.393	43.688	1.00	27.84
1124	SG	CYS	A	753	50.701	38.335	42.039	1.00	33.28
1125	C	CYS	A	753	51.225	39.605	45.855	1.00	32.33
1126	O	CYS	A	753	52.398	39.547	46.172	1.00	32.32
1127	N	LYS	A	754	50.219	39.528	46.741	1.00	32.94
1128	CA	LYS	A	754	50.507	39.386	48.166	1.00	32.10
1129	CB	LYS	A	754	50.162	40.696	48.875	1.00	33.13
1130	CG	LYS	A	754	50.605	41.963	48.135	1.00	29.06
1131	CD	LYS	A	754	50.285	43.144	49.026	1.00	35.71
1132	CE	LYS	A	754	50.643	44.415	48.261	1.00	35.80
1133	NZ	LYS	A	754	51.568	45.193	49.061	1.00	43.38
1134	C	LYS	A	754	49.841	38.219	48.816	1.00	32.31
1135	O	LYS	A	754	48.692	37.924	48.506	1.00	34.15

FIGURE 3V

A	B	C	D	E	F	G	H	I	J
1136	N	VAL	A	755	50.518	37.575	49.758	1.00	31.55
1137	CA	VAL	A	755	49.978	36.428	50.386	1.00	33.31
1138	CB	VAL	A	755	51.025	35.620	51.198	1.00	30.88
1139	CG1	VAL	A	755	50.350	34.441	51.795	1.00	32.21
1140	CG2	VAL	A	755	52.084	34.964	50.251	1.00	34.24
1141	C	VAL	A	755	48.926	37.022	51.377	1.00	35.40
1142	O	VAL	A	755	49.168	38.016	52.005	1.00	32.54
1143	N	SER	A	756	47.774	36.361	51.457	1.00	38.43
1144	CA	SER	A	756	46.644	36.872	52.159	1.00	43.72
1145	CB	SER	A	756	45.634	37.437	51.159	1.00	44.86
1146	OG	SER	A	756	44.645	38.014	52.000	1.00	54.93
1147	C	SER	A	756	46.074	35.651	52.814	1.00	43.72
1148	O	SER	A	756	46.719	34.651	52.765	1.00	43.99
1149	N	ASP	A	757	44.911	35.707	53.430	1.00	43.35
1150	CA	ASP	A	757	44.410	34.492	54.043	1.00	45.65
1151	CB	ASP	A	757	44.275	33.425	53.015	1.00	46.32
1152	CG	ASP	A	757	43.724	32.150	53.635	1.00	52.75
1153	OD1	ASP	A	757	44.124	30.984	53.230	1.00	56.00
1154	OD2	ASP	A	757	42.867	32.274	54.510	1.00	43.97
1155	C	ASP	A	757	45.196	33.850	55.204	1.00	46.33
1156	O	ASP	A	757	45.641	32.720	55.119	1.00	45.10
1157	N	PHE	A	758	45.277	34.549	56.314	1.00	47.63
1158	CA	PHE	A	758	46.037	34.089	57.464	1.00	49.68
1159	CB	PHE	A	758	46.847	35.258	58.006	1.00	44.29
1160	CG	PHE	A	758	47.817	35.731	57.094	1.00	42.30
1161	CD1	PHE	A	758	47.593	36.864	56.368	1.00	42.22
1162	CE1	PHE	A	758	48.598	37.322	55.442	1.00	39.71
1163	CZ	PHE	A	758	49.746	36.532	55.255	1.00	36.81
1164	CE2	PHE	A	758	49.877	35.352	55.943	1.00	34.18
1165	CD2	PHE	A	758	48.975	34.983	56.849	1.00	40.00
1166	C	PHE	A	758	44.974	33.723	58.453	1.00	52.68
1167	O	PHE	A	758	44.200	34.528	58.838	1.00	57.15
1168	N	GLY	A	759	44.861	32.587	58.977	1.00	55.94
1169	CA	GLY	A	759	43.688	32.622	59.798	1.00	61.61
1170	C	GLY	A	759	43.267	31.292	60.339	1.00	65.29
1171	O	GLY	A	759	42.694	30.466	59.606	1.00	67.00
1172	N	ALA	A	760	43.669	31.122	61.603	1.00	68.87
1173	CA	ALA	A	760	43.342	30.071	62.553	1.00	70.34
1174	CB	ALA	A	760	42.221	30.592	63.474	1.00	72.37
1175	C	ALA	A	760	43.001	28.691	62.018	1.00	70.84
1176	O	ALA	A	760	43.734	27.741	62.273	1.00	72.10
1177	N	LYS	A	778	38.912	22.109	55.182	1.00	61.96
1178	CA	LYS	A	778	39.123	23.434	54.474	1.00	62.02
1179	CB	LYS	A	778	39.109	24.631	55.464	1.00	61.52
1180	CG	LYS	A	778	38.190	25.744	55.100	1.00	65.24
1181	CD	LYS	A	778	36.788	25.579	55.739	1.00	72.35
1182	CE	LYS	A	778	35.799	26.577	55.111	1.00	76.05
1183	NZ	LYS	A	778	34.359	26.088	55.161	1.00	78.40
1184	C	LYS	A	778	40.461	23.466	53.662	1.00	59.65
1185	O	LYS	A	778	40.624	24.295	52.798	1.00	60.18
1186	N	ILE	A	779	41.456	22.650	53.969	1.00	56.99
1187	CA	ILE	A	779	42.634	22.716	53.087	1.00	54.46

FIGURE 3W

A	B	C	D	E	F	G	H	I	J
1188	CB	ILE	A	779	44.003	22.769	53.748	1.00	54.83
1189	CG1	ILE	A	779	44.106	23.930	54.709	1.00	56.87
1190	CD1	ILE	A	779	45.315	23.813	55.674	1.00	59.36
1191	CG2	ILE	A	779	45.029	22.969	52.634	1.00	51.91
1192	C	ILE	A	779	42.605	21.521	52.188	1.00	51.97
1193	O	ILE	A	779	42.668	20.418	52.583	1.00	49.38
1194	N	PRO	A	780	42.595	21.796	50.931	1.00	51.16
1195	CA	PRO	A	780	42.509	20.747	49.903	1.00	50.51
1196	CB	PRO	A	780	42.343	21.559	48.651	1.00	51.35
1197	CG	PRO	A	780	43.260	22.689	48.938	1.00	51.32
1198	CD	PRO	A	780	42.732	23.136	50.382	1.00	49.94
1199	C	PRO	A	780	43.749	19.936	49.777	1.00	49.64
1200	O	PRO	A	780	44.947	20.334	49.770	1.00	49.57
1201	N	ILE	A	781	43.459	18.672	49.654	1.00	50.09
1202	CA	ILE	A	781	44.559	17.737	49.516	1.00	48.15
1203	CB	ILE	A	781	43.970	16.376	49.235	1.00	48.98
1204	CG1	ILE	A	781	43.156	15.898	50.458	1.00	49.76
1205	CD1	ILE	A	781	43.925	14.976	51.333	1.00	45.76
1206	CG2	ILE	A	781	45.125	15.350	48.961	1.00	49.83
1207	C	ILE	A	781	45.512	18.088	48.393	1.00	48.04
1208	O	ILE	A	781	46.769	17.996	48.510	1.00	48.83
1209	N	ARG	A	782	44.943	18.437	47.261	1.00	47.13
1210	CA	ARG	A	782	45.802	18.586	46.083	1.00	45.63
1211	CB	ARG	A	782	45.053	18.378	44.769	1.00	47.26
1212	CG	ARG	A	782	44.023	19.394	44.396	1.00	44.31
1213	CD	ARG	A	782	42.767	18.675	44.519	1.00	46.69
1214	NE	ARG	A	782	42.141	18.708	43.274	1.00	56.04
1215	CZ	ARG	A	782	41.462	17.713	42.740	1.00	56.10
1216	NH1	ARG	A	782	40.977	17.877	41.506	1.00	56.62
1217	NH2	ARG	A	782	41.306	16.594	43.400	1.00	52.79
1218	C	ARG	A	782	46.663	19.814	45.954	1.00	44.90
1219	O	ARG	A	782	47.349	19.960	44.928	1.00	43.83
1220	N	TRP	A	783	46.618	20.701	46.956	1.00	42.72
1221	CA	TRP	A	783	47.551	21.768	46.995	1.00	39.98
1222	CB	TRP	A	783	46.868	23.004	47.412	1.00	37.95
1223	CG	TRP	A	783	46.479	23.843	46.300	1.00	35.96
1224	CD1	TRP	A	783	47.144	24.953	45.829	1.00	37.75
1225	NE1	TRP	A	783	46.442	25.528	44.784	1.00	33.74
1226	CE2	TRP	A	783	45.232	24.838	44.689	1.00	27.42
1227	CD2	TRP	A	783	45.234	23.816	45.630	1.00	27.27
1228	CE3	TRP	A	783	44.158	22.941	45.665	1.00	39.26
1229	CZ3	TRP	A	783	43.124	23.079	44.774	1.00	36.66
1230	CH2	TRP	A	783	43.148	24.149	43.847	1.00	39.76
1231	CZ2	TRP	A	783	44.221	25.011	43.792	1.00	24.85
1232	C	TRP	A	783	48.580	21.312	48.036	1.00	38.70
1233	O	TRP	A	783	49.540	21.988	48.357	1.00	35.32
1234	N	THR	A	784	48.408	20.111	48.524	1.00	40.61
1235	CA	THR	A	784	49.172	19.762	49.727	1.00	41.41
1236	CB	THR	A	784	48.221	19.287	50.845	1.00	43.19
1237	OG1	THR	A	784	47.117	20.218	51.014	1.00	45.29
1238	CG2	THR	A	784	48.958	19.287	52.200	1.00	34.46
1239	C	THR	A	784	50.198	18.707	49.543	1.00	42.11

FIGURE 3X

A	B	C	D	E	F	G	H	I	J
1240	O	THR	A	784	49.985	17.747	48.813	1.00	42.17
1241	N	ALA	A	785	51.327	18.906	50.196	1.00	42.96
1242	CA	ALA	A	785	52.418	17.963	50.141	1.00	44.73
1243	CB	ALA	A	785	53.572	18.448	50.832	1.00	42.17
1244	C	ALA	A	785	52.037	16.627	50.734	1.00	47.53
1245	O	ALA	A	785	51.473	16.538	51.822	1.00	46.77
1246	N	PRO	A	786	52.460	15.590	50.029	1.00	48.19
1247	CA	PRO	A	786	52.143	14.221	50.417	1.00	50.36
1248	CB	PRO	A	786	53.099	13.338	49.569	1.00	50.74
1249	CG	PRO	A	786	53.928	14.299	48.752	1.00	49.25
1250	CD	PRO	A	786	53.440	15.726	48.965	1.00	46.85
1251	C	PRO	A	786	52.522	14.054	51.936	1.00	52.21
1252	O	PRO	A	786	51.679	13.490	52.651	1.00	51.09
1253	N	GLU	A	787	53.714	14.492	52.403	1.00	53.11
1254	CA	GLU	A	787	53.970	14.318	53.884	1.00	55.40
1255	CB	GLU	A	787	55.401	14.738	54.382	1.00	54.09
1256	CG	GLU	A	787	55.710	16.248	54.318	1.00	55.91
1257	CD	GLU	A	787	56.214	16.661	52.939	1.00	48.91
1258	OE1	GLU	A	787	56.021	15.847	52.033	1.00	44.65
1259	OE2	GLU	A	787	56.840	17.727	52.812	1.00	45.31
1260	C	GLU	A	787	52.848	15.012	54.726	1.00	55.92
1261	O	GLU	A	787	52.130	14.368	55.542	1.00	57.24
1262	N	ALA	A	788	52.713	16.318	54.544	1.00	54.35
1263	CA	ALA	A	788	51.644	16.988	55.186	1.00	54.04
1264	CB	ALA	A	788	51.446	18.323	54.578	1.00	53.00
1265	C	ALA	A	788	50.361	16.145	55.138	1.00	54.26
1266	O	ALA	A	788	49.670	16.086	56.112	1.00	54.80
1267	N	ILE	A	789	50.025	15.490	54.028	1.00	56.51
1268	CA	ILE	A	789	48.800	14.678	54.021	1.00	57.58
1269	CB	ILE	A	789	48.409	14.228	52.640	1.00	57.54
1270	CG1	ILE	A	789	47.712	15.332	51.828	1.00	59.40
1271	CD1	ILE	A	789	47.797	15.085	50.262	1.00	54.27
1272	CG2	ILE	A	789	47.309	13.160	52.772	1.00	60.10
1273	C	ILE	A	789	48.914	13.392	54.862	1.00	58.22
1274	O	ILE	A	789	48.062	13.049	55.692	1.00	57.15
1275	N	SER	A	790	49.990	12.659	54.690	1.00	59.69
1276	CA	SER	A	790	49.932	11.382	55.316	1.00	61.39
1277	CB	SER	A	790	50.549	10.325	54.444	1.00	61.41
1278	OG	SER	A	790	51.936	10.499	54.315	1.00	61.74
1279	C	SER	A	790	50.226	11.364	56.846	1.00	63.87
1280	O	SER	A	790	49.485	10.710	57.593	1.00	64.38
1281	N	TYR	A	791	51.144	12.202	57.303	1.00	63.52
1282	CA	TYR	A	791	51.439	12.287	58.665	1.00	66.15
1283	CB	TYR	A	791	52.945	12.283	58.781	1.00	68.10
1284	CG	TYR	A	791	53.565	11.076	58.118	1.00	72.28
1285	CD1	TYR	A	791	54.150	11.173	56.854	1.00	75.63
1286	CE1	TYR	A	791	54.755	10.071	56.241	1.00	78.33
1287	CZ	TYR	A	791	54.770	8.841	56.900	1.00	79.84
1288	OH	TYR	A	791	55.332	7.732	56.302	1.00	78.87
1289	CE2	TYR	A	791	54.210	8.722	58.176	1.00	79.39
1290	CD2	TYR	A	791	53.607	9.844	58.776	1.00	76.45
1291	C	TYR	A	791	50.974	13.612	59.238	1.00	66.97

FIGURE 3Y

A	B	C	D	E	F	G	H	I	J
1292	O	TYR	A	791	51.182	13.912	60.434	1.00	66.84
1293	N	ARG	A	792	50.369	14.432	58.399	1.00	66.87
1294	CA	ARG	A	792	49.970	15.760	58.851	1.00	67.30
1295	CB	ARG	A	792	48.869	15.753	59.940	1.00	68.23
1296	CG	ARG	A	792	47.463	15.375	59.359	1.00	74.13
1297	CD	ARG	A	792	46.869	14.030	59.780	1.00	82.23
1298	NE	ARG	A	792	45.886	14.125	60.886	1.00	89.59
1299	CZ	ARG	A	792	45.202	13.080	61.426	1.00	92.80
1300	NH1	ARG	A	792	45.357	11.829	60.958	1.00	93.06
1301	NH2	ARG	A	792	44.347	13.285	62.440	1.00	92.12
1302	C	ARG	A	792	51.197	16.520	59.320	1.00	65.45
1303	O	ARG	A	792	51.139	17.269	60.315	1.00	65.77
1304	N	ALA	A	793	52.306	16.318	58.611	1.00	63.00
1305	CA	ALA	A	793	53.519	17.103	58.883	1.00	61.10
1306	CB	ALA	A	793	54.867	16.228	58.776	1.00	60.85
1307	C	ALA	A	793	53.648	18.397	58.049	1.00	59.08
1308	O	ALA	A	793	54.293	18.378	56.975	1.00	58.44
1309	N	PHE	A	794	53.105	19.517	58.578	1.00	56.19
1310	CA	PHE	A	794	53.275	20.777	57.901	1.00	52.79
1311	CB	PHE	A	794	52.133	21.718	58.149	1.00	51.44
1312	CG	PHE	A	794	50.889	21.224	57.553	1.00	53.79
1313	CD1	PHE	A	794	50.266	20.110	58.096	1.00	50.68
1314	CE1	PHE	A	794	49.177	19.633	57.537	1.00	51.95
1315	CZ	PHE	A	794	48.642	20.230	56.394	1.00	57.08
1316	CE2	PHE	A	794	49.263	21.310	55.814	1.00	48.15
1317	CD2	PHE	A	794	50.350	21.819	56.416	1.00	51.41
1318	C	PHE	A	794	54.497	21.513	58.175	1.00	51.20
1319	O	PHE	A	794	54.691	21.921	59.279	1.00	51.64
1320	N	THR	A	795	55.240	21.847	57.116	1.00	49.90
1321	CA	THR	A	795	56.318	22.788	57.254	1.00	46.99
1322	CB	THR	A	795	57.644	22.091	57.445	1.00	49.02
1323	OG1	THR	A	795	58.072	21.514	56.183	1.00	49.65
1324	CG2	THR	A	795	57.447	20.906	58.372	1.00	48.02
1325	C	THR	A	795	56.471	23.771	56.117	1.00	45.29
1326	O	THR	A	795	55.655	23.860	55.164	1.00	43.69
1327	N	SER	A	796	57.534	24.550	56.249	1.00	41.69
1328	CA	SER	A	796	57.818	25.476	55.208	1.00	41.82
1329	CB	SER	A	796	58.981	26.331	55.547	1.00	39.66
1330	OG	SER	A	796	58.361	27.301	56.341	1.00	44.72
1331	C	SER	A	796	58.049	24.704	53.900	1.00	41.56
1332	O	SER	A	796	57.696	25.199	52.871	1.00	41.54
1333	N	ALA	A	797	58.524	23.473	53.999	1.00	40.13
1334	CA	ALA	A	797	58.846	22.725	52.848	1.00	42.53
1335	CB	ALA	A	797	59.884	21.556	53.214	1.00	40.83
1336	C	ALA	A	797	57.521	22.169	52.280	1.00	42.33
1337	O	ALA	A	797	57.431	21.788	51.119	1.00	42.26
1338	N	SER	A	798	56.545	22.072	53.157	1.00	40.76
1339	CA	SER	A	798	55.253	21.629	52.760	1.00	40.11
1340	CB	SER	A	798	54.431	21.573	54.027	1.00	41.27
1341	OG	SER	A	798	53.766	20.389	53.989	1.00	46.94
1342	C	SER	A	798	54.772	22.848	51.997	1.00	39.12
1343	O	SER	A	798	54.056	22.735	51.062	1.00	39.97

FIGURE 3Z

A	B	C	D	E	F	G	H	I	J
1344	N	ASP	A	799	55.130	24.050	52.406	1.00	35.77
1345	CA	ASP	A	799	54.498	25.129	51.717	1.00	34.72
1346	CB	ASP	A	799	54.780	26.453	52.486	1.00	33.36
1347	CG	ASP	A	799	53.791	26.726	53.664	1.00	34.25
1348	OD1	ASP	A	799	52.668	26.165	53.890	1.00	36.89
1349	OD2	ASP	A	799	54.068	27.559	54.447	1.00	37.78
1350	C	ASP	A	799	55.132	25.237	50.316	1.00	35.69
1351	O	ASP	A	799	54.570	25.868	49.348	1.00	37.88
1352	N	VAL	A	800	56.387	24.819	50.252	1.00	34.31
1353	CA	VAL	A	800	57.112	24.959	49.039	1.00	34.33
1354	CB	VAL	A	800	58.663	24.654	49.163	1.00	34.63
1355	CG1	VAL	A	800	59.248	24.426	47.761	1.00	30.86
1356	CG2	VAL	A	800	59.460	25.863	49.911	1.00	29.88
1357	C	VAL	A	800	56.427	24.040	48.023	1.00	34.69
1358	O	VAL	A	800	56.251	24.480	46.945	1.00	36.80
1359	N	TRP	A	801	56.055	22.823	48.359	1.00	32.29
1360	CA	TRP	A	801	55.170	22.045	47.475	1.00	34.84
1361	CB	TRP	A	801	54.679	20.731	48.117	1.00	35.44
1362	CG	TRP	A	801	53.843	19.907	47.285	1.00	33.44
1363	CD1	TRP	A	801	52.561	20.102	46.984	1.00	32.49
1364	NE1	TRP	A	801	52.070	19.046	46.260	1.00	32.97
1365	CE2	TRP	A	801	53.073	18.136	46.097	1.00	33.72
1366	CD2	TRP	A	801	54.183	18.623	46.756	1.00	34.03
1367	CE3	TRP	A	801	55.320	17.800	46.841	1.00	38.46
1368	CZ3	TRP	A	801	55.378	16.614	46.143	1.00	33.13
1369	CH2	TRP	A	801	54.264	16.152	45.448	1.00	37.50
1370	CZ2	TRP	A	801	53.088	16.888	45.430	1.00	42.25
1371	C	TRP	A	801	53.951	22.760	47.036	1.00	34.91
1372	O	TRP	A	801	53.531	22.621	45.934	1.00	38.09
1373	N	SER	A	802	53.355	23.576	47.890	1.00	35.76
1374	CA	SER	A	802	52.126	24.274	47.503	1.00	31.87
1375	CB	SER	A	802	51.515	24.963	48.746	1.00	33.54
1376	OG	SER	A	802	50.899	23.899	49.521	1.00	30.64
1377	C	SER	A	802	52.429	25.304	46.557	1.00	31.93
1378	O	SER	A	802	51.690	25.509	45.608	1.00	34.62
1379	N	PHE	A	803	53.536	26.007	46.779	1.00	30.27
1380	CA	PHE	A	803	53.933	27.101	45.905	1.00	29.38
1381	CB	PHE	A	803	55.219	27.653	46.473	1.00	29.35
1382	CG	PHE	A	803	55.817	28.671	45.639	1.00	32.84
1383	CD1	PHE	A	803	56.825	28.328	44.672	1.00	30.14
1384	CE1	PHE	A	803	57.313	29.296	43.909	1.00	28.45
1385	CZ	PHE	A	803	56.814	30.547	43.991	1.00	26.76
1386	CE2	PHE	A	803	55.846	30.877	44.932	1.00	30.61
1387	CD2	PHE	A	803	55.372	29.962	45.745	1.00	26.06
1388	C	PHE	A	803	54.263	26.610	44.484	1.00	30.18
1389	O	PHE	A	803	54.033	27.263	43.432	1.00	27.18
1390	N	GLY	A	804	54.777	25.406	44.421	1.00	32.24
1391	CA	GLY	A	804	54.953	24.865	43.033	1.00	33.84
1392	C	GLY	A	804	53.552	24.724	42.358	1.00	33.65
1393	O	GLY	A	804	53.373	25.159	41.182	1.00	31.75
1394	N	ILE	A	805	52.558	24.215	43.119	1.00	33.22
1395	CA	ILE	A	805	51.181	24.192	42.565	1.00	33.26

FIGURE 3AA

A	B	C	D	E	F	G	H	I	J
1396	CB	ILE	A	805	50.229	23.528	43.503	1.00	33.65
1397	CG1	ILE	A	805	50.811	22.097	43.852	1.00	37.12
1398	CD1	ILE	A	805	50.975	21.032	42.698	1.00	32.87
1399	CG2	ILE	A	805	48.823	23.678	43.010	1.00	32.49
1400	C	ILE	A	805	50.696	25.579	42.206	1.00	31.48
1401	O	ILE	A	805	50.103	25.710	41.183	1.00	35.71
1402	N	VAL	A	806	51.019	26.638	42.935	1.00	28.75
1403	CA	VAL	A	806	50.549	27.991	42.575	1.00	25.41
1404	CB	VAL	A	806	50.961	29.014	43.621	1.00	25.04
1405	CG1	VAL	A	806	50.941	30.522	43.191	1.00	21.16
1406	CG2	VAL	A	806	50.157	28.790	45.007	1.00	23.21
1407	C	VAL	A	806	51.341	28.242	41.357	1.00	29.80
1408	O	VAL	A	806	50.912	28.993	40.455	1.00	29.17
1409	N	MET	A	807	52.538	27.649	41.280	1.00	30.71
1410	CA	MET	A	807	53.344	27.966	40.092	1.00	31.44
1411	CB	MET	A	807	54.785	27.399	40.149	1.00	32.92
1412	CG	MET	A	807	55.817	28.157	41.066	1.00	31.62
1413	SD	MET	A	807	57.439	27.395	40.955	1.00	39.41
1414	CE	MET	A	807	57.070	26.142	40.672	1.00	45.05
1415	C	MET	A	807	52.606	27.493	38.830	1.00	31.38
1416	O	MET	A	807	52.491	28.212	37.876	1.00	33.09
1417	N	TRP	A	808	51.936	26.352	38.875	1.00	31.98
1418	CA	TRP	A	808	51.347	25.777	37.672	1.00	32.34
1419	CB	TRP	A	808	51.102	24.315	38.067	1.00	33.08
1420	CG	TRP	A	808	50.501	23.517	37.005	1.00	36.11
1421	CD1	TRP	A	808	51.163	22.792	36.077	1.00	36.58
1422	NE1	TRP	A	808	50.257	22.139	35.281	1.00	38.43
1423	CE2	TRP	A	808	49.005	22.468	35.660	1.00	33.35
1424	CD2	TRP	A	808	49.123	23.335	36.754	1.00	31.70
1425	CE3	TRP	A	808	47.968	23.831	37.345	1.00	35.04
1426	CZ3	TRP	A	808	46.744	23.452	36.868	1.00	36.54
1427	CH2	TRP	A	808	46.638	22.571	35.743	1.00	38.94
1428	CZ2	TRP	A	808	47.760	22.047	35.138	1.00	38.69
1429	C	TRP	A	808	50.064	26.516	37.482	1.00	33.39
1430	O	TRP	A	808	49.612	26.851	36.402	1.00	34.70
1431	N	GLU	A	809	49.457	26.832	38.629	1.00	33.47
1432	CA	GLU	A	809	48.354	27.714	38.567	1.00	30.38
1433	CB	GLU	A	809	47.563	28.010	39.941	1.00	30.54
1434	CG	GLU	A	809	47.069	26.930	40.924	1.00	28.60
1435	CD	GLU	A	809	46.429	27.611	42.127	1.00	33.46
1436	OE1	GLU	A	809	45.269	28.166	42.033	1.00	31.67
1437	OE2	GLU	A	809	47.163	27.747	43.156	1.00	40.29
1438	C	GLU	A	809	48.610	29.024	37.793	1.00	29.74
1439	O	GLU	A	809	47.798	29.552	36.933	1.00	30.79
1440	N	VAL	A	810	49.656	29.723	38.167	1.00	28.13
1441	CA	VAL	A	810	49.889	31.000	37.520	1.00	26.64
1442	CB	VAL	A	810	51.022	31.716	38.242	1.00	26.67
1443	CG1	VAL	A	810	51.575	32.853	37.310	1.00	22.89
1444	CG2	VAL	A	810	50.493	32.103	39.725	1.00	27.59
1445	C	VAL	A	810	50.319	30.755	35.999	1.00	28.59
1446	O	VAL	A	810	49.854	31.404	35.114	1.00	24.03
1447	N	MET	A	811	51.055	29.682	35.705	1.00	30.08

FIGURE 3AB

A	B	C	D	E	F	G	H	I	J
1448	CA	MET	A	811	51.499	29.612	34.339	1.00	31.44
1449	CB	MET	A	811	52.744	28.783	34.201	1.00	35.04
1450	CG	MET	A	811	54.001	29.305	35.125	1.00	31.45
1451	SD	MET	A	811	54.298	30.999	34.729	1.00	37.47
1452	CE	MET	A	811	54.782	30.847	33.012	1.00	32.94
1453	C	MET	A	811	50.347	29.060	33.524	1.00	34.61
1454	O	MET	A	811	50.403	29.178	32.332	1.00	32.60
1455	N	THR	A	812	49.276	28.501	34.133	1.00	34.24
1456	CA	THR	A	812	48.198	28.074	33.241	1.00	32.52
1457	CB	THR	A	812	47.466	26.795	33.649	1.00	34.00
1458	OG1	THR	A	812	47.141	26.876	35.053	1.00	32.67
1459	CG2	THR	A	812	48.398	25.639	33.662	1.00	30.33
1460	C	THR	A	812	47.135	29.096	33.341	1.00	31.91
1461	O	THR	A	812	46.025	28.855	32.943	1.00	30.76
1462	N	TYR	A	813	47.464	30.243	33.834	1.00	31.56
1463	CA	TYR	A	813	46.387	31.261	33.929	1.00	31.70
1464	CB	TYR	A	813	46.014	31.896	32.589	1.00	29.74
1465	CG	TYR	A	813	47.044	32.836	31.958	1.00	30.09
1466	CD1	TYR	A	813	48.104	32.376	31.114	1.00	28.85
1467	CE1	TYR	A	813	49.010	33.279	30.612	1.00	29.29
1468	CZ	TYR	A	813	48.842	34.593	30.910	1.00	29.69
1469	OH	TYR	A	813	49.541	35.655	30.375	1.00	38.24
1470	CE2	TYR	A	813	47.824	35.015	31.708	1.00	31.05
1471	CD2	TYR	A	813	46.969	34.162	32.203	1.00	29.25
1472	C	TYR	A	813	45.134	30.738	34.656	1.00	30.85
1473	O	TYR	A	813	44.083	30.936	34.220	1.00	30.55
1474	N	GLY	A	814	45.270	30.031	35.753	1.00	33.19
1475	CA	GLY	A	814	44.090	29.747	36.568	1.00	35.27
1476	C	GLY	A	814	43.411	28.377	36.403	1.00	37.11
1477	O	GLY	A	814	42.283	28.190	36.933	1.00	33.77
1478	N	GLU	A	815	44.027	27.436	35.672	1.00	36.20
1479	CA	GLU	A	815	43.465	26.106	35.683	1.00	39.73
1480	CB	GLU	A	815	44.122	25.206	34.568	1.00	39.41
1481	CG	GLU	A	815	43.383	23.879	34.352	1.00	45.14
1482	CD	GLU	A	815	41.799	24.015	34.235	1.00	55.70
1483	OE1	GLU	A	815	41.019	24.346	35.224	1.00	48.24
1484	OE2	GLU	A	815	41.307	23.789	33.053	1.00	64.63
1485	C	GLU	A	815	43.505	25.458	37.133	1.00	40.38
1486	O	GLU	A	815	44.323	25.869	37.956	1.00	41.33
1487	N	ARG	A	816	42.636	24.460	37.433	1.00	41.29
1488	CA	ARG	A	816	42.531	23.823	38.748	1.00	42.57
1489	CB	ARG	A	816	41.035	23.394	38.997	1.00	43.10
1490	CG	ARG	A	816	40.769	21.927	39.483	1.00	46.76
1491	CD	ARG	A	816	39.291	21.462	39.802	1.00	54.39
1492	NE	ARG	A	816	39.376	20.573	40.974	1.00	59.04
1493	CZ	ARG	A	816	39.408	21.041	42.240	1.00	63.78
1494	NH1	ARG	A	816	39.513	20.179	43.233	1.00	65.53
1495	NH2	ARG	A	816	39.304	22.384	42.511	1.00	59.05
1496	C	ARG	A	816	43.464	22.644	38.721	1.00	41.97
1497	O	ARG	A	816	43.398	21.857	37.823	1.00	42.38
1498	N	PRO	A	817	44.469	22.608	39.597	1.00	43.68
1499	CA	PRO	A	817	45.379	21.453	39.672	1.00	41.81

FIGURE 3AC

A	B	C	D	E	F	G	H	I	J
1500	CB	PRO	A	817	46.156	21.699	40.929	1.00	41.78
1501	CG	PRO	A	817	46.031	23.202	41.122	1.00	43.11
1502	CD	PRO	A	817	44.749	23.678	40.560	1.00	40.66
1503	C	PRO	A	817	44.627	20.101	39.695	1.00	44.30
1504	O	PRO	A	817	43.467	19.877	40.271	1.00	45.86
1505	N	TYR	A	818	45.189	19.255	38.843	1.00	44.92
1506	CA	TYR	A	818	44.739	17.910	38.593	1.00	45.34
1507	CB	TYR	A	818	44.740	17.159	39.884	1.00	43.91
1508	CG	TYR	A	818	46.093	17.345	40.535	1.00	42.86
1509	CD1	TYR	A	818	47.185	16.479	40.253	1.00	38.28
1510	CE1	TYR	A	818	48.459	16.660	40.852	1.00	37.76
1511	CZ	TYR	A	818	48.610	17.633	41.743	1.00	35.89
1512	OH	TYR	A	818	49.875	17.735	42.212	1.00	42.19
1513	CE2	TYR	A	818	47.577	18.531	42.049	1.00	33.24
1514	CD2	TYR	A	818	46.316	18.406	41.423	1.00	37.98
1515	C	TYR	A	818	43.336	17.995	38.033	1.00	47.01
1516	O	TYR	A	818	42.518	17.049	38.110	1.00	48.49
1517	N	TRP	A	819	43.005	19.164	37.505	1.00	47.05
1518	CA	TRP	A	819	41.701	19.253	36.867	1.00	50.46
1519	CB	TRP	A	819	41.740	18.432	35.528	1.00	48.43
1520	CG	TRP	A	819	42.829	18.844	34.728	1.00	46.58
1521	CD1	TRP	A	819	42.959	20.031	34.004	1.00	49.18
1522	NE1	TRP	A	819	44.228	20.119	33.441	1.00	43.97
1523	CE2	TRP	A	819	44.918	18.980	33.793	1.00	43.12
1524	CD2	TRP	A	819	44.087	18.187	34.609	1.00	47.93
1525	CE3	TRP	A	819	44.579	16.961	35.056	1.00	49.44
1526	CZ3	TRP	A	819	45.822	16.613	34.720	1.00	46.77
1527	CH2	TRP	A	819	46.585	17.392	33.912	1.00	42.84
1528	CZ2	TRP	A	819	46.157	18.598	33.464	1.00	45.34
1529	C	TRP	A	819	40.560	18.743	37.751	1.00	50.78
1530	O	TRP	A	819	40.418	19.134	38.920	1.00	52.87
1531	N	GLU	A	820	39.757	17.855	37.170	1.00	53.15
1532	CA	GLU	A	820	38.614	17.241	37.872	1.00	54.37
1533	CB	GLU	A	820	37.449	16.941	36.924	1.00	54.32
1534	CG	GLU	A	820	36.366	18.002	36.896	1.00	57.57
1535	CD	GLU	A	820	36.972	19.390	36.838	1.00	61.97
1536	OE1	GLU	A	820	36.651	20.232	37.703	1.00	63.58
1537	OE2	GLU	A	820	37.815	19.635	35.943	1.00	65.58
1538	C	GLU	A	820	38.939	15.918	38.502	1.00	54.50
1539	O	GLU	A	820	38.032	15.090	38.695	1.00	56.40
1540	N	LEU	A	821	40.212	15.698	38.795	1.00	55.83
1541	CA	LEU	A	821	40.604	14.432	39.369	1.00	54.87
1542	CB	LEU	A	821	42.050	14.101	39.090	1.00	54.66
1543	CG	LEU	A	821	42.599	13.702	37.713	1.00	55.17
1544	CD1	LEU	A	821	44.138	14.023	37.650	1.00	59.74
1545	CD2	LEU	A	821	42.372	12.223	37.358	1.00	57.81
1546	C	LEU	A	821	40.311	14.322	40.862	1.00	55.57
1547	O	LEU	A	821	40.184	15.328	41.610	1.00	52.91
1548	N	SER	A	822	40.208	13.053	41.283	1.00	55.96
1549	CA	SER	A	822	39.800	12.777	42.619	1.00	56.75
1550	CB	SER	A	822	39.132	11.424	42.709	1.00	57.57
1551	OG	SER	A	822	40.163	10.441	42.724	1.00	61.05

FIGURE 3AD

A	B	C	D	E	F	G	H	I	J
1552	C	SER	A	822	41.015	12.742	43.471	1.00	56.82
1553	O	SER	A	822	42.111	12.351	43.029	1.00	55.43
1554	N	ASN	A	823	40.752	13.039	44.733	1.00	57.38
1555	CA	ASN	A	823	41.802	13.209	45.699	1.00	58.87
1556	CB	ASN	A	823	41.242	13.615	47.073	1.00	58.15
1557	CG	ASN	A	823	40.815	15.094	47.094	1.00	60.32
1558	OD1	ASN	A	823	41.592	15.963	46.785	1.00	63.73
1559	ND2	ASN	A	823	39.582	15.363	47.432	1.00	61.31
1560	C	ASN	A	823	42.513	11.941	45.660	1.00	59.12
1561	O	ASN	A	823	43.753	11.872	45.759	1.00	60.64
1562	N	HIS	A	824	41.733	10.936	45.381	1.00	58.77
1563	CA	HIS	A	824	42.274	9.608	45.413	1.00	60.00
1564	CB	HIS	A	824	41.115	8.627	45.445	1.00	60.99
1565	CG	HIS	A	824	41.565	7.246	45.256	1.00	67.03
1566	ND1	HIS	A	824	42.251	6.566	46.238	1.00	72.16
1567	CE1	HIS	A	824	42.594	5.370	45.772	1.00	77.00
1568	NE2	HIS	A	824	42.189	5.271	44.513	1.00	75.73
1569	CD2	HIS	A	824	41.551	6.441	44.161	1.00	74.03
1570	C	HIS	A	824	43.240	9.346	44.223	1.00	58.19
1571	O	HIS	A	824	44.439	9.014	44.396	1.00	55.80
1572	N	GLU	A	825	42.701	9.531	43.014	1.00	57.37
1573	CA	GLU	A	825	43.514	9.516	41.785	1.00	56.22
1574	CB	GLU	A	825	42.623	10.008	40.632	1.00	57.84
1575	CG	GLU	A	825	41.881	8.907	39.881	1.00	62.50
1576	CD	GLU	A	825	40.412	9.114	39.860	1.00	67.90
1577	OE1	GLU	A	825	39.948	10.076	39.213	1.00	70.44
1578	OE2	GLU	A	825	39.725	8.297	40.518	1.00	74.63
1579	C	GLU	A	825	44.764	10.399	42.063	1.00	54.94
1580	O	GLU	A	825	45.937	9.927	42.067	1.00	54.45
1581	N	VAL	A	826	44.529	11.648	42.467	1.00	53.85
1582	CA	VAL	A	826	45.667	12.540	42.776	1.00	52.93
1583	CB	VAL	A	826	45.208	13.870	43.319	1.00	51.81
1584	CG1	VAL	A	826	46.447	14.871	43.452	1.00	52.68
1585	CG2	VAL	A	826	44.197	14.432	42.370	1.00	51.90
1586	C	VAL	A	826	46.759	11.943	43.687	1.00	53.42
1587	O	VAL	A	826	47.967	11.917	43.378	1.00	53.40
1588	N	MET	A	827	46.363	11.447	44.821	1.00	53.41
1589	CA	MET	A	827	47.422	10.969	45.636	1.00	55.16
1590	CB	MET	A	827	47.018	10.882	47.148	1.00	55.87
1591	CG	MET	A	827	45.490	10.429	47.445	1.00	60.83
1592	SD	MET	A	827	44.615	10.847	49.114	1.00	65.49
1593	CE	MET	A	827	46.288	11.405	49.883	1.00	54.71
1594	C	MET	A	827	48.133	9.757	44.935	1.00	54.89
1595	O	MET	A	827	49.401	9.704	44.875	1.00	55.10
1596	N	ALA	A	828	47.375	8.861	44.295	1.00	55.10
1597	CA	ALA	A	828	48.085	7.757	43.600	1.00	55.33
1598	CB	ALA	A	828	47.165	6.654	43.057	1.00	54.77
1599	C	ALA	A	828	49.049	8.267	42.521	1.00	54.77
1600	O	ALA	A	828	50.167	7.792	42.403	1.00	54.26
1601	N	ALA	A	829	48.698	9.315	41.805	1.00	55.62
1602	CA	ALA	A	829	49.672	9.732	40.804	1.00	56.05
1603	CB	ALA	A	829	49.103	10.831	39.898	1.00	56.37

FIGURE 3AE

A	B	C	D	E	F	G	H	I	J
1604	C	ALA	A	829	50.966	10.177	41.468	1.00	56.31
1605	O	ALA	A	829	52.116	9.756	41.108	1.00	56.19
1606	N	ILE	A	830	50.765	11.020	42.471	1.00	56.52
1607	CA	ILE	A	830	51.891	11.651	43.112	1.00	56.87
1608	CB	ILE	A	830	51.446	12.581	44.293	1.00	57.35
1609	CG1	ILE	A	830	50.835	13.861	43.719	1.00	56.71
1610	CD1	ILE	A	830	51.574	14.320	42.496	1.00	47.37
1611	CG2	ILE	A	830	52.641	12.975	45.149	1.00	52.92
1612	C	ILE	A	830	52.767	10.611	43.637	1.00	58.16
1613	O	ILE	A	830	54.003	10.637	43.431	1.00	58.31
1614	N	ASN	A	831	52.120	9.692	44.344	1.00	59.54
1615	CA	ASN	A	831	52.883	8.672	45.016	1.00	60.79
1616	CB	ASN	A	831	52.033	7.966	46.046	1.00	62.19
1617	CG	ASN	A	831	51.972	8.768	47.324	1.00	65.87
1618	OD1	ASN	A	831	52.993	9.400	47.727	1.00	66.49
1619	ND2	ASN	A	831	50.781	8.826	47.934	1.00	68.01
1620	C	ASN	A	831	53.492	7.757	44.044	1.00	59.66
1621	O	ASN	A	831	54.558	7.248	44.274	1.00	58.77
1622	N	ASP	A	832	52.860	7.609	42.896	1.00	59.28
1623	CA	ASP	A	832	53.530	6.790	41.905	1.00	60.01
1624	CB	ASP	A	832	52.494	6.118	41.014	1.00	60.55
1625	CG	ASP	A	832	52.076	4.698	41.576	1.00	66.55
1626	OD1	ASP	A	832	51.135	4.051	41.007	1.00	71.66
1627	OD2	ASP	A	832	52.672	4.151	42.569	1.00	63.91
1628	C	ASP	A	832	54.697	7.455	41.121	1.00	59.37
1629	O	ASP	A	832	55.088	6.979	40.039	1.00	58.56
1630	N	GLY	A	833	55.293	8.525	41.664	1.00	58.64
1631	CA	GLY	A	833	56.220	9.303	40.850	1.00	57.55
1632	C	GLY	A	833	55.529	9.892	39.615	1.00	57.72
1633	O	GLY	A	833	55.730	9.408	38.503	1.00	61.73
1634	N	PHE	A	834	54.711	10.932	39.806	1.00	55.50
1635	CA	PHE	A	834	53.992	11.588	38.713	1.00	52.71
1636	CB	PHE	A	834	52.692	10.831	38.438	1.00	52.86
1637	CG	PHE	A	834	52.758	9.760	37.377	1.00	55.68
1638	CD1	PHE	A	834	53.292	9.991	36.064	1.00	61.07
1639	CE1	PHE	A	834	53.276	8.953	35.053	1.00	58.90
1640	CZ	PHE	A	834	52.739	7.624	35.386	1.00	60.52
1641	CE2	PHE	A	834	52.202	7.400	36.702	1.00	56.50
1642	CD2	PHE	A	834	52.210	8.481	37.656	1.00	60.30
1643	C	PHE	A	834	53.471	12.969	39.156	1.00	50.70
1644	O	PHE	A	834	52.879	13.061	40.234	1.00	50.00
1645	N	ARG	A	835	53.578	13.973	38.269	1.00	47.79
1646	CA	ARG	A	835	53.278	15.397	38.529	1.00	47.62
1647	CB	ARG	A	835	54.544	16.240	38.538	1.00	47.50
1648	CG	ARG	A	835	55.739	15.796	39.492	1.00	48.70
1649	CD	ARG	A	835	55.161	15.694	40.870	1.00	48.58
1650	NE	ARG	A	835	56.010	15.092	41.866	1.00	46.46
1651	CZ	ARG	A	835	55.778	13.923	42.395	1.00	45.45
1652	NH1	ARG	A	835	54.763	13.179	41.994	1.00	49.16
1653	NH2	ARG	A	835	56.575	13.478	43.301	1.00	47.75
1654	C	ARG	A	835	52.392	16.027	37.439	1.00	44.98
1655	O	ARG	A	835	52.160	15.415	36.403	1.00	46.68

FIGURE 3AF

A	B	C	D	E	F	G	H	I	J
1656	N	LEU	A	836	51.883	17.246	37.678	1.00	42.81
1657	CA	LEU	A	836	51.065	17.947	36.699	1.00	41.01
1658	CB	LEU	A	836	50.651	19.385	37.117	1.00	38.39
1659	CG	LEU	A	836	49.702	19.386	38.291	1.00	40.70
1660	CD1	LEU	A	836	49.697	20.808	38.794	1.00	38.83
1661	CD2	LEU	A	836	48.341	18.855	37.832	1.00	33.85
1662	C	LEU	A	836	51.944	18.162	35.569	1.00	38.14
1663	O	LEU	A	836	53.047	18.472	35.801	1.00	38.29
1664	N	PRO	A	837	51.413	18.144	34.359	1.00	38.07
1665	CA	PRO	A	837	52.214	18.316	33.157	1.00	36.29
1666	CB	PRO	A	837	51.232	17.819	32.075	1.00	36.93
1667	CG	PRO	A	837	49.907	18.505	32.492	1.00	35.54
1668	CD	PRO	A	837	49.973	18.141	34.008	1.00	37.87
1669	C	PRO	A	837	52.525	19.778	32.964	1.00	36.09
1670	O	PRO	A	837	51.936	20.719	33.673	1.00	34.39
1671	N	THR	A	838	53.406	20.032	32.013	1.00	34.01
1672	CA	THR	A	838	53.894	21.359	31.903	1.00	35.98
1673	CB	THR	A	838	55.120	21.485	30.963	1.00	36.64
1674	OG1	THR	A	838	55.395	22.892	30.765	1.00	39.83
1675	CG2	THR	A	838	54.736	21.181	29.545	1.00	38.71
1676	C	THR	A	838	52.803	22.116	31.252	1.00	38.36
1677	O	THR	A	838	52.197	21.670	30.274	1.00	39.45
1678	N	PRO	A	839	52.619	23.313	31.726	1.00	36.96
1679	CA	PRO	A	839	51.719	24.197	31.114	1.00	37.46
1680	CB	PRO	A	839	51.724	25.405	32.037	1.00	34.44
1681	CG	PRO	A	839	52.681	25.139	33.091	1.00	33.53
1682	CD	PRO	A	839	53.318	23.890	32.865	1.00	37.82
1683	C	PRO	A	839	52.285	24.602	29.749	1.00	38.53
1684	O	PRO	A	839	53.481	24.718	29.536	1.00	40.65
1685	N	MET	A	840	51.382	24.872	28.840	1.00	40.11
1686	CA	MET	A	840	51.632	25.423	27.501	1.00	40.90
1687	CB	MET	A	840	50.230	25.730	26.953	1.00	42.06
1688	CG	MET	A	840	50.129	26.167	25.481	1.00	50.27
1689	SD	MET	A	840	50.014	24.569	24.486	1.00	67.03
1690	CE	MET	A	840	51.027	25.324	23.049	1.00	53.52
1691	C	MET	A	840	52.554	26.728	27.544	1.00	40.78
1692	O	MET	A	840	52.331	27.704	28.311	1.00	41.90
1693	N	ASP	A	841	53.600	26.738	26.735	1.00	39.46
1694	CA	ASP	A	841	54.541	27.802	26.665	1.00	38.39
1695	CB	ASP	A	841	53.847	28.967	26.104	1.00	36.97
1696	CG	ASP	A	841	53.255	28.676	24.629	1.00	40.53
1697	OD1	ASP	A	841	53.550	27.617	23.972	1.00	39.77
1698	OD2	ASP	A	841	52.445	29.466	24.066	1.00	36.62
1699	C	ASP	A	841	55.291	28.055	28.007	1.00	39.55
1700	O	ASP	A	841	55.749	29.129	28.326	1.00	41.50
1701	N	CYS	A	842	55.381	27.056	28.840	1.00	39.14
1702	CA	CYS	A	842	56.121	27.250	30.088	1.00	37.64
1703	CB	CYS	A	842	55.781	26.076	31.018	1.00	35.73
1704	SG	CYS	A	842	56.126	26.564	32.674	1.00	37.11
1705	C	CYS	A	842	57.616	27.200	29.840	1.00	36.94
1706	O	CYS	A	842	58.077	26.258	29.219	1.00	33.74
1707	N	PRO	A	843	58.352	28.267	30.217	1.00	37.65

FIGURE 3AG

A	B	C	D	E	F	G	H	I	J
1708	CA	PRO	A	843	59.804	28.178	30.251	1.00	34.75
1709	CB	PRO	A	843	60.257	29.383	31.062	1.00	31.74
1710	CG	PRO	A	843	59.216	30.413	30.790	1.00	38.14
1711	CD	PRO	A	843	57.864	29.626	30.588	1.00	36.86
1712	C	PRO	A	843	60.258	26.981	30.973	1.00	34.58
1713	O	PRO	A	843	59.616	26.646	32.033	1.00	34.71
1714	N	SER	A	844	61.364	26.414	30.439	1.00	30.44
1715	CA	SER	A	844	61.947	25.239	30.957	1.00	32.01
1716	CB	SER	A	844	63.155	24.861	30.092	1.00	32.60
1717	OG	SER	A	844	63.939	23.905	30.735	1.00	32.71
1718	C	SER	A	844	62.421	25.519	32.326	1.00	33.01
1719	O	SER	A	844	62.327	24.669	33.152	1.00	34.58
1720	N	ALA	A	845	62.988	26.690	32.593	1.00	34.49
1721	CA	ALA	A	845	63.384	26.961	34.006	1.00	36.49
1722	CB	ALA	A	845	64.315	28.212	34.109	1.00	35.62
1723	C	ALA	A	845	62.124	27.066	34.982	1.00	34.14
1724	O	ALA	A	845	62.137	26.522	36.021	1.00	35.47
1725	N	ILE	A	846	60.992	27.590	34.558	1.00	33.95
1726	CA	ILE	A	846	59.787	27.597	35.457	1.00	31.95
1727	CB	ILE	A	846	58.778	28.539	34.866	1.00	33.95
1728	CG1	ILE	A	846	59.535	29.848	34.737	1.00	27.88
1729	CD1	ILE	A	846	59.817	30.375	36.417	1.00	26.15
1730	CG2	ILE	A	846	57.462	28.631	35.735	1.00	28.18
1731	C	ILE	A	846	59.233	26.236	35.656	1.00	32.51
1732	O	ILE	A	846	59.054	25.847	36.786	1.00	31.68
1733	N	TYR	A	847	59.145	25.413	34.603	1.00	35.30
1734	CA	TYR	A	847	58.714	23.984	34.822	1.00	35.63
1735	CB	TYR	A	847	58.713	23.167	33.520	1.00	35.69
1736	CG	TYR	A	847	57.927	21.911	33.661	1.00	32.14
1737	CD1	TYR	A	847	58.477	20.696	33.310	1.00	27.77
1738	CE1	TYR	A	847	57.759	19.516	33.469	1.00	33.54
1739	CZ	TYR	A	847	56.522	19.509	34.064	1.00	31.43
1740	OH	TYR	A	847	55.943	18.320	34.231	1.00	40.26
1741	CE2	TYR	A	847	55.917	20.681	34.490	1.00	35.09
1742	CD2	TYR	A	847	56.645	21.928	34.253	1.00	32.81
1743	C	TYR	A	847	59.577	23.180	35.723	1.00	36.62
1744	O	TYR	A	847	59.090	22.401	36.510	1.00	38.41
1745	N	GLN	A	848	60.874	23.301	35.605	1.00	38.13
1746	CA	GLN	A	848	61.806	22.493	36.466	1.00	39.42
1747	CB	GLN	A	848	63.262	22.533	35.863	1.00	42.35
1748	CG	GLN	A	848	63.313	21.927	34.477	1.00	38.83
1749	CD	GLN	A	848	62.999	20.404	34.549	1.00	44.22
1750	OE1	GLN	A	848	62.228	19.877	33.736	1.00	48.28
1751	NE2	GLN	A	848	63.569	19.735	35.485	1.00	33.20
1752	C	GLN	A	848	61.821	22.902	37.950	1.00	36.31
1753	O	GLN	A	848	61.762	22.045	38.829	1.00	35.55
1754	N	LEU	A	849	61.847	24.194	38.200	1.00	37.37
1755	CA	LEU	A	849	61.716	24.680	39.552	1.00	38.40
1756	CB	LEU	A	849	61.552	26.151	39.507	1.00	37.22
1757	CG	LEU	A	849	61.237	26.406	40.933	1.00	36.60
1758	CD1	LEU	A	849	62.551	26.128	41.744	1.00	24.80
1759	CD2	LEU	A	849	60.902	27.913	40.922	1.00	33.30

FIGURE 3AH

A	B	C	D	E	F	G	H	I	J
1760	C	LEU	A	849	60.521	24.099	40.250	1.00	39.79
1761	O	LEU	A	849	60.540	23.685	41.468	1.00	43.91
1762	N	MET	A	850	59.445	24.005	39.489	1.00	39.24
1763	CA	MET	A	850	58.240	23.461	40.122	1.00	39.96
1764	CB	MET	A	850	56.904	23.372	39.299	1.00	40.95
1765	CG	MET	A	850	56.413	24.449	38.405	1.00	41.55
1766	SD	MET	A	850	55.117	23.680	37.431	1.00	39.78
1767	CE	MET	A	850	54.574	24.992	36.847	1.00	18.82
1768	C	MET	A	850	58.422	22.040	40.423	1.00	37.52
1769	O	MET	A	850	57.783	21.573	41.370	1.00	38.53
1770	N	MET	A	851	58.853	21.295	39.415	1.00	35.10
1771	CA	MET	A	851	59.106	19.877	39.608	1.00	37.40
1772	CB	MET	A	851	59.826	19.275	38.407	1.00	36.06
1773	CG	MET	A	851	58.932	19.130	37.200	1.00	35.21
1774	SD	MET	A	851	57.537	18.184	37.411	1.00	43.74
1775	CE	MET	A	851	58.198	16.716	37.455	1.00	39.92
1776	C	MET	A	851	60.128	19.901	40.767	1.00	40.11
1777	O	MET	A	851	60.201	18.982	41.570	1.00	38.44
1778	N	GLN	A	852	60.894	20.980	40.908	1.00	39.68
1779	CA	GLN	A	852	61.720	20.958	42.059	1.00	42.72
1780	CB	GLN	A	852	62.918	21.868	41.882	1.00	41.86
1781	CG	GLN	A	852	63.758	21.298	40.778	1.00	52.95
1782	CD	GLN	A	852	65.096	22.010	40.537	1.00	62.78
1783	OE1	GLN	A	852	65.118	23.232	40.419	1.00	60.88
1784	NE2	GLN	A	852	66.203	21.229	40.419	1.00	69.19
1785	C	GLN	A	852	60.804	21.170	43.309	1.00	43.28
1786	O	GLN	A	852	60.916	20.491	44.309	1.00	43.36
1787	N	CYS	A	853	59.818	22.048	43.242	1.00	43.67
1788	CA	CYS	A	853	59.046	22.136	44.454	1.00	41.63
1789	CB	CYS	A	853	58.067	23.283	44.417	1.00	40.32
1790	SG	CYS	A	853	58.919	24.771	44.088	1.00	36.67
1791	C	CYS	A	853	58.330	20.847	44.697	1.00	42.12
1792	O	CYS	A	853	57.934	20.608	45.832	1.00	42.69
1793	N	TRP	A	854	58.115	20.013	43.675	1.00	42.37
1794	CA	TRP	A	854	57.383	18.705	43.926	1.00	41.75
1795	CB	TRP	A	854	56.200	18.430	42.946	1.00	38.35
1796	CG	TRP	A	854	55.327	19.556	42.514	1.00	37.67
1797	CD1	TRP	A	854	54.684	20.557	43.330	1.00	35.33
1798	NE1	TRP	A	854	53.972	21.386	42.509	1.00	37.18
1799	CE2	TRP	A	854	54.150	21.016	41.201	1.00	36.61
1800	CD2	TRP	A	854	54.937	19.861	41.168	1.00	38.28
1801	CE3	TRP	A	854	55.238	19.302	39.913	1.00	35.92
1802	CZ3	TRP	A	854	54.644	19.863	38.774	1.00	35.78
1803	CH2	TRP	A	854	53.886	20.998	38.860	1.00	37.11
1804	CZ2	TRP	A	854	53.642	21.597	40.055	1.00	36.88
1805	C	TRP	A	854	58.249	17.379	44.163	1.00	43.48
1806	O	TRP	A	854	57.788	16.232	43.928	1.00	40.95
1807	N	GLN	A	855	59.470	17.495	44.694	1.00	46.45
1808	CA	GLN	A	855	60.141	16.215	45.033	1.00	47.97
1809	CB	GLN	A	855	61.562	16.399	45.421	1.00	49.14
1810	CG	GLN	A	855	62.300	17.429	44.563	1.00	53.78
1811	CD	GLN	A	855	63.599	16.874	43.944	1.00	57.56

FIGURE 3AI

A	B	C	D	E	F	G	H	I	J
1812	OE1	GLN	A	855	64.568	17.630	43.788	1.00	58.49
1813	NE2	GLN	A	855	63.597	15.574	43.550	1.00	53.02
1814	C	GLN	A	855	59.503	15.583	46.185	1.00	48.95
1815	O	GLN	A	855	59.135	16.279	47.106	1.00	48.87
1816	N	GLN	A	856	59.417	14.251	46.193	1.00	50.70
1817	CA	GLN	A	856	58.760	13.603	47.270	1.00	51.94
1818	CB	GLN	A	856	58.589	12.110	47.008	1.00	52.72
1819	CG	GLN	A	856	57.987	11.341	48.190	1.00	56.53
1820	CD	GLN	A	856	56.902	10.378	47.730	1.00	67.51
1821	OE1	GLN	A	856	57.145	9.159	47.626	1.00	70.03
1822	NE2	GLN	A	856	55.687	10.921	47.421	1.00	70.24
1823	C	GLN	A	856	59.464	13.844	48.587	1.00	52.44
1824	O	GLN	A	856	58.839	13.901	49.641	1.00	51.92
1825	N	GLU	A	857	60.776	13.978	48.540	1.00	53.47
1826	CA	GLU	A	857	61.455	14.329	49.763	1.00	52.94
1827	CB	GLU	A	857	62.751	13.574	49.888	1.00	55.76
1828	CG	GLU	A	857	63.760	13.655	48.776	1.00	62.73
1829	CD	GLU	A	857	64.555	12.357	48.808	1.00	75.13
1830	OE1	GLU	A	857	65.792	12.306	48.476	1.00	76.93
1831	OE2	GLU	A	857	63.876	11.369	49.244	1.00	80.58
1832	C	GLU	A	857	61.642	15.763	50.058	1.00	51.09
1833	O	GLU	A	857	62.330	16.518	49.385	1.00	50.10
1834	N	ALA	A	858	61.062	16.140	51.162	1.00	51.40
1835	CA	ALA	A	858	60.918	17.553	51.501	1.00	51.01
1836	CB	ALA	A	858	60.376	17.634	52.879	1.00	51.91
1837	C	ALA	A	858	62.236	18.232	51.481	1.00	52.16
1838	O	ALA	A	858	62.369	19.416	51.138	1.00	49.85
1839	N	ALA	A	859	63.210	17.476	51.999	1.00	52.64
1840	CA	ALA	A	859	64.489	18.044	52.311	1.00	51.38
1841	CB	ALA	A	859	65.270	17.114	53.176	1.00	52.83
1842	C	ALA	A	859	65.149	18.322	51.024	1.00	50.59
1843	O	ALA	A	859	66.033	19.188	50.921	1.00	52.09
1844	N	ARG	A	860	64.677	17.712	49.971	1.00	49.07
1845	CA	ARG	A	860	65.287	18.206	48.702	1.00	49.33
1846	CB	ARG	A	860	65.434	17.117	47.664	1.00	49.91
1847	CG	ARG	A	860	66.326	15.929	48.098	1.00	56.52
1848	CD	ARG	A	860	66.767	14.950	46.979	1.00	67.86
1849	NE	ARG	A	860	67.897	15.592	46.310	1.00	79.99
1850	CZ	ARG	A	860	67.957	15.919	45.009	1.00	84.18
1851	NH1	ARG	A	860	69.035	16.555	44.538	1.00	86.30
1852	NH2	ARG	A	860	66.970	15.583	44.177	1.00	86.46
1853	C	ARG	A	860	64.642	19.423	48.073	1.00	47.17
1854	O	ARG	A	860	65.289	20.026	47.190	1.00	48.00
1855	N	ARG	A	861	63.390	19.778	48.428	1.00	43.32
1856	CA	ARG	A	861	62.722	20.886	47.710	1.00	42.70
1857	CB	ARG	A	861	61.279	21.149	48.284	1.00	43.25
1858	CG	ARG	A	861	60.375	19.925	48.223	1.00	38.41
1859	CD	ARG	A	861	58.992	19.969	48.886	1.00	33.61
1860	NE	ARG	A	861	58.563	18.555	48.956	1.00	39.84
1861	CZ	ARG	A	861	57.675	18.061	49.776	1.00	40.88
1862	NH1	ARG	A	861	57.041	18.838	50.621	1.00	47.18
1863	NH2	ARG	A	861	57.448	16.786	49.809	1.00	42.74

FIGURE 3AJ

A	B	C	D	E	F	G	H	I	J
1864	C	ARG	A	861	63.548	22.127	47.982	1.00	40.90
1865	O	ARG	A	861	64.151	22.197	49.048	1.00	45.17
1866	N	PRO	A	862	63.579	23.123	47.135	1.00	38.11
1867	CA	PRO	A	862	64.366	24.296	47.443	1.00	36.92
1868	CB	PRO	A	862	64.173	25.174	46.248	1.00	37.49
1869	CG	PRO	A	862	62.978	24.528	45.479	1.00	34.16
1870	CD	PRO	A	862	62.827	23.232	45.881	1.00	36.86
1871	C	PRO	A	862	63.565	24.973	48.494	1.00	40.68
1872	O	PRO	A	862	62.378	24.679	48.675	1.00	38.28
1873	N	LYS	A	863	64.195	25.936	49.155	1.00	43.10
1874	CA	LYS	A	863	63.626	26.658	50.273	1.00	43.38
1875	CB	LYS	A	863	64.689	26.934	51.402	1.00	44.69
1876	CG	LYS	A	863	64.809	25.604	52.283	1.00	50.07
1877	CD	LYS	A	863	65.801	25.501	53.459	1.00	60.38
1878	CE	LYS	A	863	65.260	26.211	54.856	1.00	67.58
1879	NZ	LYS	A	863	66.287	26.302	55.993	1.00	63.31
1880	C	LYS	A	863	63.235	27.905	49.612	1.00	43.27
1881	O	LYS	A	863	63.753	28.275	48.476	1.00	45.68
1882	N	PHE	A	864	62.350	28.605	50.290	1.00	40.33
1883	CA	PHE	A	864	61.830	29.779	49.682	1.00	37.37
1884	CB	PHE	A	864	60.731	30.422	50.528	1.00	35.46
1885	CG	PHE	A	864	59.441	29.808	50.353	1.00	32.57
1886	CD1	PHE	A	864	58.869	29.099	51.365	1.00	34.21
1887	CE1	PHE	A	864	57.672	28.495	51.231	1.00	31.67
1888	CZ	PHE	A	864	56.964	28.622	49.961	1.00	31.72
1889	CE2	PHE	A	864	57.525	29.380	48.954	1.00	30.90
1890	CD2	PHE	A	864	58.743	29.927	49.129	1.00	37.14
1891	C	PHE	A	864	62.874	30.743	49.304	1.00	38.42
1892	O	PHE	A	864	62.717	31.509	48.307	1.00	40.96
1893	N	ALA	A	865	63.875	30.905	50.126	1.00	38.95
1894	CA	ALA	A	865	64.964	31.837	49.712	1.00	40.21
1895	CB	ALA	A	865	66.009	31.987	50.851	1.00	40.74
1896	C	ALA	A	865	65.712	31.328	48.376	1.00	39.07
1897	O	ALA	A	865	66.186	32.133	47.578	1.00	40.17
1898	N	ASP	A	866	65.855	30.036	48.142	1.00	38.13
1899	CA	ASP	A	866	66.437	29.657	46.850	1.00	41.20
1900	CB	ASP	A	866	66.592	28.205	46.710	1.00	42.25
1901	CG	ASP	A	866	67.356	27.563	47.886	1.00	46.38
1902	OD1	ASP	A	866	68.194	28.328	48.467	1.00	45.69
1903	OD2	ASP	A	866	67.164	26.319	48.255	1.00	46.52
1904	C	ASP	A	866	65.471	30.112	45.734	1.00	43.03
1905	O	ASP	A	866	65.895	30.862	44.786	1.00	43.71
1906	N	ILE	A	867	64.154	29.834	45.959	1.00	41.85
1907	CA	ILE	A	867	63.161	30.097	44.945	1.00	39.25
1908	CB	ILE	A	867	61.738	29.686	45.429	1.00	40.79
1909	CG1	ILE	A	867	61.715	28.196	45.547	1.00	37.78
1910	CD1	ILE	A	867	60.587	27.644	46.393	1.00	31.95
1911	CG2	ILE	A	867	60.673	29.978	44.377	1.00	40.13
1912	C	ILE	A	867	63.262	31.517	44.601	1.00	38.15
1913	O	ILE	A	867	63.383	31.839	43.478	1.00	34.00
1914	N	VAL	A	868	63.293	32.407	45.587	1.00	41.76
1915	CA	VAL	A	868	63.363	33.826	45.221	1.00	42.24

FIGURE 3AK

A	B	C	D	E	F	G	H	I	J
1916	CB	VAL	A	868	63.468	34.646	46.495	1.00	43.37
1917	CG1	VAL	A	868	63.906	36.180	46.204	1.00	36.83
1918	CG2	VAL	A	868	62.167	34.602	47.161	1.00	44.87
1919	C	VAL	A	868	64.595	34.086	44.346	1.00	43.26
1920	O	VAL	A	868	64.566	34.653	43.250	1.00	42.88
1921	N	SER	A	869	65.709	33.593	44.819	1.00	43.82
1922	CA	SER	A	869	66.947	33.788	44.034	1.00	45.81
1923	CB	SER	A	869	68.135	33.277	44.868	1.00	46.51
1924	OG	SER	A	869	69.256	32.973	44.081	1.00	55.81
1925	C	SER	A	869	66.932	33.161	42.595	1.00	43.21
1926	O	SER	A	869	67.448	33.748	41.646	1.00	45.11
1927	N	ILE	A	870	66.309	32.041	42.410	1.00	40.48
1928	CA	ILE	A	870	66.341	31.421	41.081	1.00	41.53
1929	CB	ILE	A	870	65.721	30.078	41.130	1.00	40.21
1930	CG1	ILE	A	870	66.726	29.091	41.617	1.00	37.62
1931	CD1	ILE	A	870	65.913	27.844	42.278	1.00	34.59
1932	CG2	ILE	A	870	65.227	29.674	39.764	1.00	37.43
1933	C	ILE	A	870	65.551	32.101	40.057	1.00	41.17
1934	O	ILE	A	870	65.629	31.841	38.862	1.00	45.96
1935	N	LEU	A	871	64.743	32.960	40.589	1.00	42.32
1936	CA	LEU	A	871	63.690	33.613	39.857	1.00	39.74
1937	CB	LEU	A	871	62.477	33.514	40.715	1.00	36.70
1938	CG	LEU	A	871	61.084	32.948	40.403	1.00	42.57
1939	CD1	LEU	A	871	61.128	31.584	39.753	1.00	39.10
1940	CD2	LEU	A	871	60.155	32.800	41.647	1.00	33.43
1941	C	LEU	A	871	64.073	35.062	39.677	1.00	40.56
1942	O	LEU	A	871	63.729	35.716	38.685	1.00	39.95
1943	N	ASP	A	872	64.858	35.566	40.655	1.00	43.30
1944	CA	ASP	A	872	65.641	36.754	40.333	1.00	45.25
1945	CB	ASP	A	872	66.270	37.416	41.537	1.00	44.64
1946	CG	ASP	A	872	65.296	38.054	42.370	1.00	50.39
1947	OD1	ASP	A	872	64.560	38.981	41.884	1.00	58.03
1948	OD2	ASP	A	872	65.222	37.729	43.584	1.00	59.66
1949	C	ASP	A	872	66.617	36.467	39.147	1.00	42.59
1950	O	ASP	A	872	66.673	37.301	38.244	1.00	40.36
1951	N	LYS	A	873	67.123	35.244	39.030	1.00	43.85
1952	CA	LYS	A	873	68.158	35.043	37.946	1.00	46.85
1953	CB	LYS	A	873	68.848	33.639	37.915	1.00	47.60
1954	CG	LYS	A	873	69.201	33.005	36.461	1.00	56.65
1955	CD	LYS	A	873	70.697	32.494	36.301	1.00	64.86
1956	CE	LYS	A	873	71.327	31.621	37.470	1.00	72.42
1957	NZ	LYS	A	873	72.948	31.544	37.520	1.00	77.28
1958	C	LYS	A	873	67.273	35.234	36.716	1.00	45.54
1959	O	LYS	A	873	67.554	36.043	35.848	1.00	47.71
1960	N	LEU	A	874	66.177	34.496	36.670	1.00	44.00
1961	CA	LEU	A	874	65.345	34.413	35.523	1.00	41.76
1962	CB	LEU	A	874	64.257	33.510	35.950	1.00	42.33
1963	CG	LEU	A	874	64.335	32.030	35.627	1.00	43.61
1964	CD1	LEU	A	874	65.728	31.506	34.940	1.00	39.31
1965	CD2	LEU	A	874	63.820	31.183	36.838	1.00	40.93
1966	C	LEU	A	874	64.842	35.818	35.223	1.00	41.73
1967	O	LEU	A	874	64.974	36.328	34.103	1.00	40.87

FIGURE 3AL

A	B	C	D	E	F	G	H	I	J
1968	N	ILE	A	875	64.356	36.539	36.219	1.00	41.36
1969	CA	ILE	A	875	63.986	37.926	35.895	1.00	41.48
1970	CB	ILE	A	875	63.241	38.556	37.045	1.00	41.83
1971	CG1	ILE	A	875	61.848	37.830	37.313	1.00	41.11
1972	CD1	ILE	A	875	61.307	38.014	38.707	1.00	42.11
1973	CG2	ILE	A	875	63.128	39.991	36.768	1.00	39.85
1974	C	ILE	A	875	65.128	38.822	35.369	1.00	43.50
1975	O	ILE	A	875	64.949	39.592	34.357	1.00	42.05
1976	N	ALA	A	876	66.305	38.724	36.005	1.00	43.68
1977	CA	ALA	A	876	67.460	39.526	35.543	1.00	47.29
1978	CB	ALA	A	876	68.686	39.705	36.633	1.00	45.33
1979	C	ALA	A	876	67.981	39.177	34.150	1.00	47.94
1980	O	ALA	A	876	68.349	40.096	33.381	1.00	49.38
1981	N	ALA	A	877	67.882	37.894	33.781	1.00	49.67
1982	CA	ALA	A	877	68.248	37.448	32.433	1.00	48.36
1983	CB	ALA	A	877	69.359	36.469	32.485	1.00	47.02
1984	C	ALA	A	877	67.051	36.862	31.723	1.00	48.54
1985	O	ALA	A	877	66.995	35.680	31.364	1.00	48.87
1986	N	PRO	A	878	66.165	37.720	31.333	1.00	48.50
1987	CA	PRO	A	878	64.883	37.290	30.768	1.00	50.31
1988	CB	PRO	A	878	64.248	38.609	30.314	1.00	49.52
1989	CG	PRO	A	878	65.076	39.594	30.795	1.00	48.76
1990	CD	PRO	A	878	66.399	39.140	31.199	1.00	47.09
1991	C	PRO	A	878	65.005	36.339	29.595	1.00	51.52
1992	O	PRO	A	878	64.080	35.558	29.329	1.00	52.11
1993	N	ASP	A	879	66.118	36.423	28.857	1.00	53.47
1994	CA	ASP	A	879	66.313	35.529	27.704	1.00	53.74
1995	CB	ASP	A	879	67.561	35.840	26.877	1.00	54.59
1996	CG	ASP	A	879	67.426	37.117	26.105	1.00	57.51
1997	OD1	ASP	A	879	66.311	37.639	25.969	1.00	61.05
1998	OD2	ASP	A	879	68.385	37.705	25.618	1.00	63.66
1999	C	ASP	A	879	66.337	34.121	28.137	1.00	52.26
2000	O	ASP	A	879	66.064	33.243	27.320	1.00	52.16
2001	N	SER	A	880	66.687	33.897	29.401	1.00	50.31
2002	CA	SER	A	880	66.494	32.578	30.001	1.00	49.70
2003	CB	SER	A	880	66.869	32.588	31.504	1.00	52.27
2004	OG	SER	A	880	65.870	33.209	32.357	1.00	50.20
2005	C	SER	A	880	65.026	32.063	29.841	1.00	49.60
2006	O	SER	A	880	64.796	30.895	29.773	1.00	49.66
2007	N	LEU	A	881	64.021	32.922	29.716	1.00	47.09
2008	CA	LEU	A	881	62.691	32.401	29.788	1.00	44.70
2009	CB	LEU	A	881	61.748	33.479	30.429	1.00	42.64
2010	CG	LEU	A	881	62.027	33.854	31.893	1.00	37.67
2011	CD1	LEU	A	881	61.053	35.053	32.335	1.00	46.29
2012	CD2	LEU	A	881	61.905	32.636	32.698	1.00	30.01
2013	C	LEU	A	881	62.230	31.982	28.406	1.00	46.11
2014	O	LEU	A	881	61.063	31.708	28.161	1.00	46.79
2015	N	LYS	A	882	63.166	31.996	27.480	1.00	46.05
2016	CA	LYS	A	882	62.872	31.829	26.034	1.00	44.09
2017	CB	LYS	A	882	63.999	32.408	25.172	1.00	42.68
2018	CG	LYS	A	882	63.822	33.855	24.808	1.00	50.65
2019	CD	LYS	A	882	64.615	34.299	23.548	1.00	57.85

FIGURE 3AM

A	B	C	D	E	F	G	H	I	J
2020	CE	LYS	A	882	66.036	33.711	23.442	1.00	57.83
2021	NZ	LYS	A	882	66.063	32.670	22.379	1.00	62.95
2022	C	LYS	A	882	62.712	30.397	25.609	1.00	39.93
2023	O	LYS	A	882	62.057	30.189	24.624	1.00	38.21
2024	N	THR	A	883	63.413	29.481	26.255	1.00	36.09
2025	CA	THR	A	883	63.327	28.070	25.917	1.00	37.39
2026	CB	THR	A	883	64.642	27.295	26.300	1.00	38.89
2027	OG1	THR	A	883	65.753	27.896	25.645	1.00	45.06
2028	CG2	THR	A	883	64.619	25.861	25.703	1.00	34.98
2029	C	THR	A	883	62.325	27.441	26.760	1.00	37.20
2030	O	THR	A	883	62.376	27.619	27.985	1.00	38.72
2031	N	LEU	A	884	61.468	26.653	26.136	1.00	36.33
2032	CA	LEU	A	884	60.299	26.154	26.735	1.00	37.19
2033	CB	LEU	A	884	59.256	26.182	25.688	1.00	37.32
2034	CG	LEU	A	884	58.405	27.401	25.764	1.00	39.51
2035	CD1	LEU	A	884	59.168	28.654	26.319	1.00	40.46
2036	CD2	LEU	A	884	57.816	27.595	24.464	1.00	39.93
2037	C	LEU	A	884	60.536	24.812	27.146	1.00	37.90
2038	O	LEU	A	884	61.439	24.224	26.704	1.00	37.67
2039	N	ALA	A	885	59.766	24.349	28.090	1.00	40.12
2040	CA	ALA	A	885	59.817	22.985	28.517	1.00	43.23
2041	CB	ALA	A	885	59.092	22.789	29.809	1.00	40.83
2042	C	ALA	A	885	59.015	22.235	27.462	1.00	47.82
2043	O	ALA	A	885	58.130	22.796	26.805	1.00	48.49
2044	N	ASP	A	886	59.249	20.942	27.379	1.00	53.03
2045	CA	ASP	A	886	58.481	20.131	26.460	1.00	57.55
2046	CB	ASP	A	886	59.468	19.350	25.609	1.00	59.17
2047	CG	ASP	A	886	59.801	20.080	24.316	1.00	66.52
2048	OD1	ASP	A	886	60.703	19.608	23.581	1.00	73.87
2049	OD2	ASP	A	886	59.214	21.145	23.960	1.00	73.11
2050	C	ASP	A	886	57.476	19.113	26.984	1.00	58.65
2051	O	ASP	A	886	57.538	18.664	28.103	1.00	58.38
2052	N	ALA	A	887	56.511	18.790	26.120	1.00	62.53
2053	CA	ALA	A	887	55.793	17.514	26.245	1.00	63.20
2054	CB	ALA	A	887	56.793	16.396	26.732	1.00	63.87
2055	C	ALA	A	887	54.506	17.495	27.046	1.00	64.13
2056	O	ALA	A	887	53.476	18.015	26.589	1.00	64.69
4115	O1A	ATP	A	1000	37.488	36.083	52.431	1.00	68.23
4116	PA	ATP	A	1000	38.403	36.497	51.393	1.00	58.85
4117	O2A	ATP	A	1000	39.539	36.819	52.377	1.00	63.08
4118	O3A	ATP	A	1000	38.307	35.243	50.501	1.00	64.52
4119	PB	ATP	A	1000	37.326	34.027	51.050	1.00	65.46
4120	O1B	ATP	A	1000	36.977	33.851	52.487	1.00	64.98
4121	O2B	ATP	A	1000	38.372	32.868	50.835	1.00	64.05
4122	O3B	ATP	A	1000	36.030	33.835	50.075	1.00	61.18
4123	PG	ATP	A	1000	36.102	33.771	48.418	1.00	64.66
4124	O3G	ATP	A	1000	37.337	34.705	47.992	1.00	61.28
4125	O2G	ATP	A	1000	34.842	34.413	47.778	1.00	53.07
4126	O1G	ATP	A	1000	36.347	32.439	47.869	1.00	55.85
4127	O5*	ATP	A	1000	37.771	37.754	50.611	1.00	63.69
4128	C5*	ATP	A	1000	36.564	37.629	49.871	1.00	51.19
4129	C4*	ATP	A	1000	36.702	38.452	48.619	1.00	48.45

FIGURE 3AN

A	B	C	D	E	F	G	H	I	J
4130	O4*	ATP	A	1000	36.838	39.812	48.897	1.00	48.02
4131	C1*	ATP	A	1000	37.801	40.399	48.075	1.00	51.30
4132	C2*	ATP	A	1000	38.364	39.349	47.132	1.00	56.06
4133	O2*	ATP	A	1000	37.709	39.459	45.885	1.00	53.71
4134	C3*	ATP	A	1000	37.962	38.092	47.863	1.00	56.21
4135	O3*	ATP	A	1000	37.576	37.178	46.929	1.00	56.41
4136	N9	ATP	A	1000	38.870	40.760	48.977	1.00	48.97
4137	C8	ATP	A	1000	39.164	40.209	50.155	1.00	46.56
4138	N7	ATP	A	1000	40.236	40.937	50.642	1.00	47.18
4139	C5	ATP	A	1000	40.553	41.923	49.802	1.00	46.85
4140	C6	ATP	A	1000	41.495	42.912	49.749	1.00	45.05
4141	N6	ATP	A	1000	42.491	43.015	50.606	1.00	51.47
4142	C4	ATP	A	1000	39.721	41.807	48.758	1.00	44.98
4143	N3	ATP	A	1000	39.840	42.616	47.754	1.00	40.18
4144	C2	ATP	A	1000	40.730	43.613	47.652	1.00	40.86
4145	N1	ATP	A	1000	41.527	43.736	48.735	1.00	37.92
4177	O	HOH	Y	301	34.209	-7.517	100.111	1.00	42.77
4178	O	HOH	Y	302	52.030	44.683	51.996	1.00	37.34
4179	O	HOH	Y	303	36.987	20.304	84.823	1.00	48.24
4180	O	HOH	Y	304	24.445	37.848	61.354	1.00	30.63
4181	O	HOH	Y	305	38.693	6.951	84.781	1.00	33.40
4182	O	HOH	Y	306	43.619	28.688	43.907	1.00	36.33
4183	O	HOH	Y	307	35.150	4.275	99.892	1.00	38.81
4184	O	HOH	Y	308	34.293	39.454	56.291	1.00	26.79
4185	O	HOH	Y	309	26.249	38.679	67.871	1.00	28.41
4186	O	HOH	Y	310	37.152	-3.870	86.285	1.00	44.21
4187	O	HOH	Y	311	52.468	18.101	40.466	1.00	34.94
4188	O	HOH	Y	312	58.705	41.579	36.068	1.00	42.08
4189	O	HOH	Y	313	21.983	-0.989	94.287	1.00	43.17
4190	O	HOH	Y	314	50.636	25.308	51.909	1.00	29.96
4191	O	HOH	Y	315	38.314	43.464	44.478	1.00	53.90
4192	O	HOH	Y	316	58.592	38.555	28.508	1.00	46.60
4193	O	HOH	Y	317	34.711	38.223	45.323	1.00	38.90
4194	O	HOH	Y	318	51.004	34.502	28.290	1.00	43.71
4195	O	HOH	Y	319	50.245	44.662	31.484	1.00	39.87
4196	O	HOH	Y	320	53.203	28.844	30.705	1.00	35.11
4197	O	HOH	Y	321	37.565	5.987	104.482	1.00	42.90
4198	O	HOH	Y	322	51.412	38.707	25.922	1.00	46.40
4199	O	HOH	Y	323	50.121	-23.627	89.919	1.00	49.18
4200	O	HOH	Y	324	54.265	41.237	40.221	1.00	38.57
4201	O	HOH	Y	325	35.932	15.979	69.458	1.00	44.49
4202	O	HOH	Y	327	40.167	40.451	29.178	1.00	43.85
4203	O	HOH	Y	328	63.877	28.468	30.538	1.00	41.56
4204	O	HOH	Y	329	62.331	40.960	56.402	1.00	46.79
4205	O	HOH	Y	330	49.475	13.163	96.500	1.00	41.09
4206	O	HOH	Y	331	46.704	12.338	89.706	1.00	32.58
4207	O	HOH	Y	332	34.910	37.079	56.822	1.00	29.88
4208	O	HOH	Y	333	66.529	22.709	35.322	1.00	38.73
4209	O	HOH	Y	334	54.290	40.356	42.871	1.00	33.86
4210	O	HOH	Y	335	39.125	35.580	29.291	1.00	52.12
4211	O	HOH	Y	336	30.038	21.951	78.948	1.00	38.53
4212	O	HOH	Y	337	39.032	40.142	27.076	1.00	46.77

FIGURE 3AO

A	B	C	D	E	F	G	H	I	J
4213	O	HOH	Y	338	27.063	12.328	81.741	1.00	49.23
4214	O	HOH	Y	339	43.495	-1.978	101.845	1.00	29.87
4215	O	HOH	Y	340	24.042	11.453	87.471	1.00	41.90
4216	O	HOH	Y	341	28.532	21.817	105.465	1.00	51.38
4217	O	HOH	Y	342	34.250	-2.816	87.557	1.00	40.16
4218	O	HOH	Y	343	61.321	37.753	51.409	1.00	42.73
4219	O	HOH	Y	344	36.839	-8.065	88.494	1.00	47.43
4220	O	HOH	Y	345	36.931	51.353	67.108	1.00	43.87
4221	O	HOH	Y	346	32.133	3.426	74.670	1.00	41.40
4222	O	HOH	Y	347	35.239	-3.830	103.044	1.00	32.29
4223	O	HOH	Y	348	29.414	4.943	100.046	1.00	41.59
4224	O	HOH	Y	349	24.239	20.789	98.495	1.00	55.55
4225	O	HOH	Y	350	56.249	24.229	27.459	1.00	35.32
4226	O	HOH	Y	351	42.039	36.733	27.828	1.00	31.77
4227	O	HOH	Y	352	49.598	14.602	89.944	1.00	39.22
4228	O	HOH	Y	353	53.086	45.810	55.315	1.00	46.66
4229	O	HOH	Y	354	56.134	28.666	55.481	1.00	37.89
4230	O	HOH	Y	355	63.607	21.585	51.318	1.00	45.92
4231	O	HOH	Y	356	47.007	-0.656	101.802	1.00	39.67
4232	O	HOH	Y	357	56.849	42.289	30.051	1.00	43.93
4233	O	HOH	Y	358	50.297	45.047	58.166	1.00	37.20
4234	O	HOH	Y	359	28.541	41.183	57.319	1.00	46.64
4235	O	HOH	Y	360	61.669	23.736	51.056	1.00	46.15
4236	O	HOH	Y	361	46.431	16.691	103.110	1.00	35.98
4237	O	HOH	Y	362	43.512	8.970	105.775	1.00	36.32
4238	O	HOH	Y	363	62.088	25.972	23.786	1.00	38.78
4239	O	HOH	Y	364	64.287	31.187	20.702	1.00	44.19
4240	O	HOH	Y	365	34.618	30.621	63.970	1.00	40.96
4241	O	HOH	Y	366	25.281	41.511	59.290	1.00	44.80
4242	O	HOH	Y	367	45.275	20.695	97.308	1.00	46.67

FIGURE 3AP

A	B	C	D	E	F	G	H	I	J
2057	N	ALA	B	602	61.588	-1.705	97.096	1.00	75.62
2058	CA	ALA	B	602	61.031	-2.970	96.546	1.00	76.68
2059	CB	ALA	B	602	61.665	-3.292	95.199	1.00	76.47
2060	C	ALA	B	602	61.337	-4.080	97.519	1.00	77.44
2061	O	ALA	B	602	61.332	-5.311	97.156	1.00	75.75
2062	N	LYS	B	603	61.635	-3.605	98.744	1.00	77.75
2063	CA	LYS	B	603	62.173	-4.417	99.861	1.00	77.56
2064	CB	LYS	B	603	63.425	-3.748	100.411	1.00	78.96
2065	CG	LYS	B	603	63.212	-2.282	100.938	1.00	78.12
2066	CD	LYS	B	603	62.779	-2.211	102.422	1.00	78.99
2067	CE	LYS	B	603	63.952	-2.034	103.426	1.00	79.93
2068	NZ	LYS	B	603	64.536	-0.656	103.573	1.00	79.82
2069	C	LYS	B	603	61.103	-4.418	100.921	1.00	76.81
2070	O	LYS	B	603	61.315	-4.798	102.072	1.00	75.16
2071	N	PHE	B	604	59.938	-3.975	100.457	1.00	76.03
2072	CA	PHE	B	604	58.711	-3.929	101.207	1.00	74.92
2073	CB	PHE	B	604	58.102	-2.575	100.991	1.00	76.05
2074	CG	PHE	B	604	58.700	-1.538	101.857	1.00	78.39
2075	CD1	PHE	B	604	58.564	-1.631	103.231	1.00	79.39
2076	CE1	PHE	B	604	59.115	-0.671	104.059	1.00	84.10
2077	CZ	PHE	B	604	59.854	0.395	103.511	1.00	81.74
2078	CE2	PHE	B	604	60.017	0.474	102.144	1.00	82.47
2079	CD2	PHE	B	604	59.448	-0.503	101.312	1.00	81.05
2080	C	PHE	B	604	57.783	-5.006	100.707	1.00	73.54
2081	O	PHE	B	604	56.553	-4.941	100.826	1.00	73.46
2082	N	THR	B	605	58.368	-6.069	100.190	1.00	71.71
2083	CA	THR	B	605	57.496	-7.068	99.640	1.00	68.96
2084	CB	THR	B	605	57.540	-6.922	98.163	1.00	68.75
2085	OG1	THR	B	605	57.203	-8.191	97.632	1.00	71.34
2086	CG2	THR	B	605	58.991	-6.774	97.722	1.00	71.15
2087	C	THR	B	605	57.874	-8.494	99.969	1.00	65.74
2088	O	THR	B	605	59.000	-8.868	99.864	1.00	66.65
2089	N	THR	B	606	56.897	-9.294	100.339	1.00	61.47
2090	CA	THR	B	606	57.083	-10.702	100.542	1.00	56.89
2091	CB	THR	B	606	55.818	-11.150	101.234	1.00	58.04
2092	OG1	THR	B	606	55.636	-10.407	102.470	1.00	53.91
2093	CG2	THR	B	606	55.854	-12.662	101.579	1.00	56.07
2094	C	THR	B	606	57.153	-11.402	99.182	1.00	55.32
2095	O	THR	B	606	56.376	-11.139	98.285	1.00	55.18
2096	N	GLU	B	607	58.053	-12.330	99.008	1.00	52.87
2097	CA	GLU	B	607	58.113	-13.077	97.771	1.00	48.83
2098	CB	GLU	B	607	59.550	-13.585	97.546	1.00	50.19
2099	CG	GLU	B	607	59.720	-14.650	96.488	1.00	49.52
2100	CD	GLU	B	607	59.828	-14.069	95.132	1.00	53.13

FIGURE 3AQ

A	B	C	D	E	F	G	H	I	J
2101	OE1	GLU	B	607	59.999	-12.782	95.021	1.00	47.52
2102	OE2	GLU	B	607	59.708	-14.931	94.179	1.00	56.60
2103	C	GLU	B	607	57.128	-14.194	97.907	1.00	47.66
2104	O	GLU	B	607	57.022	-14.795	98.940	1.00	45.85
2105	N	ILE	B	608	56.391	-14.548	96.865	1.00	47.65
2106	CA	ILE	B	608	55.448	-15.608	97.148	1.00	47.68
2107	CB	ILE	B	608	54.064	-15.132	96.825	1.00	48.07
2108	CG1	ILE	B	608	53.550	-14.230	97.980	1.00	49.31
2109	CD1	ILE	B	608	52.448	-13.233	97.562	1.00	50.75
2110	CG2	ILE	B	608	53.146	-16.282	96.537	1.00	42.03
2111	C	ILE	B	608	55.742	-16.879	96.433	1.00	48.49
2112	O	ILE	B	608	56.251	-16.848	95.356	1.00	47.91
2113	N	HIS	B	609	55.425	-18.022	97.025	1.00	49.63
2114	CA	HIS	B	609	55.656	-19.227	96.270	1.00	51.07
2115	CB	HIS	B	609	56.018	-20.399	97.228	1.00	52.62
2116	CG	HIS	B	609	56.581	-21.599	96.510	1.00	58.19
2117	ND1	HIS	B	609	55.816	-22.693	96.162	1.00	61.53
2118	CE1	HIS	B	609	56.579	-23.592	95.553	1.00	64.63
2119	NE2	HIS	B	609	57.808	-23.110	95.462	1.00	68.36
2120	CD2	HIS	B	609	57.837	-21.866	96.060	1.00	67.33
2121	C	HIS	B	609	54.553	-19.610	95.259	1.00	49.78
2122	O	HIS	B	609	53.384	-19.793	95.618	1.00	51.06
2123	N	PRO	B	610	54.961	-19.951	94.060	1.00	49.31
2124	CA	PRO	B	610	54.043	-20.289	92.937	1.00	48.79
2125	CB	PRO	B	610	54.978	-20.868	91.902	1.00	47.24
2126	CG	PRO	B	610	56.241	-20.130	92.245	1.00	45.60
2127	CD	PRO	B	610	56.362	-20.127	93.691	1.00	48.27
2128	C	PRO	B	610	52.968	-21.233	93.256	1.00	47.95
2129	O	PRO	B	610	51.831	-21.007	92.869	1.00	49.54
2130	N	SER	B	611	53.307	-22.313	93.907	1.00	48.59
2131	CA	SER	B	611	52.298	-23.175	94.438	1.00	48.44
2132	CB	SER	B	611	52.899	-24.417	95.162	1.00	51.57
2133	OG	SER	B	611	53.726	-24.112	96.289	1.00	52.63
2134	C	SER	B	611	51.472	-22.460	95.404	1.00	47.60
2135	O	SER	B	611	50.501	-22.969	95.803	1.00	48.97
2136	N	CYS	B	612	51.820	-21.290	95.872	1.00	46.75
2137	CA	CYS	B	612	50.813	-20.743	96.749	1.00	48.06
2138	CB	CYS	B	612	51.361	-19.740	97.818	1.00	47.86
2139	SG	CYS	B	612	52.389	-20.799	98.813	1.00	51.39
2140	C	CYS	B	612	49.624	-20.195	96.060	1.00	45.77
2141	O	CYS	B	612	48.614	-19.972	96.685	1.00	45.07
2142	N	VAL	B	613	49.747	-20.011	94.767	1.00	44.88
2143	CA	VAL	B	613	48.774	-19.212	94.037	1.00	44.04
2144	CB	VAL	B	613	49.503	-18.166	93.300	1.00	45.69
2145	CG1	VAL	B	613	48.618	-17.575	92.151	1.00	41.35
2146	CG2	VAL	B	613	50.034	-17.191	94.320	1.00	41.89
2147	C	VAL	B	613	47.999	-19.928	93.015	1.00	42.53
2148	O	VAL	B	613	48.497	-20.712	92.308	1.00	43.54
2149	N	THR	B	614	46.777	-19.543	92.870	1.00	40.71
2150	CA	THR	B	614	45.947	-20.229	91.985	1.00	41.54
2151	CB	THR	B	614	45.183	-21.096	92.969	1.00	40.51
2152	OG1	THR	B	614	45.217	-22.498	92.671	1.00	48.61

FIGURE 3AR

A	B	C	D	E	F	G	H	I	J
2153	CG2	THR	B	614	43.817	-20.769	93.108	1.00	44.50
2154	C	THR	B	614	45.095	-19.149	91.179	1.00	41.38
2155	O	THR	B	614	44.528	-18.144	91.814	1.00	42.18
2156	N	ARG	B	615	44.943	-19.369	89.853	1.00	38.93
2157	CA	ARG	B	615	44.168	-18.494	88.956	1.00	36.43
2158	CB	ARG	B	615	44.933	-18.179	87.724	1.00	36.87
2159	CG	ARG	B	615	46.293	-17.663	87.956	1.00	35.71
2160	CD	ARG	B	615	47.125	-17.512	86.727	1.00	38.53
2161	NE	ARG	B	615	47.289	-18.840	86.152	1.00	38.81
2162	CZ	ARG	B	615	47.844	-19.126	84.944	1.00	38.46
2163	NH1	ARG	B	615	47.984	-20.387	84.635	1.00	31.60
2164	NH2	ARG	B	615	48.288	-18.181	84.111	1.00	33.51
2165	C	ARG	B	615	42.893	-19.117	88.530	1.00	37.76
2166	O	ARG	B	615	42.807	-20.263	88.159	1.00	39.62
2167	N	GLN	B	616	41.827	-18.383	88.576	1.00	38.21
2168	CA	GLN	B	616	40.604	-18.954	88.262	1.00	37.39
2169	CB	GLN	B	616	39.752	-18.618	89.472	1.00	39.47
2170	CG	GLN	B	616	39.837	-19.563	90.688	1.00	43.49
2171	CD	GLN	B	616	39.636	-18.814	92.022	1.00	50.53
2172	OE1	GLN	B	616	40.185	-17.701	92.256	1.00	48.97
2173	NE2	GLN	B	616	38.866	-19.425	92.903	1.00	57.89
2174	C	GLN	B	616	39.977	-18.178	87.047	1.00	36.84
2175	O	GLN	B	616	38.992	-18.598	86.463	1.00	32.04
2176	N	LYS	B	617	40.448	-16.990	86.746	1.00	35.94
2177	CA	LYS	B	617	39.759	-16.287	85.725	1.00	38.36
2178	CB	LYS	B	617	38.377	-16.007	86.263	1.00	39.22
2179	CG	LYS	B	617	37.772	-14.698	86.233	1.00	42.77
2180	CD	LYS	B	617	36.370	-14.825	86.696	1.00	53.79
2181	CE	LYS	B	617	35.593	-13.466	87.025	1.00	63.68
2182	NZ	LYS	B	617	35.717	-12.927	88.489	1.00	63.21
2183	C	LYS	B	617	40.552	-15.100	85.316	1.00	40.50
2184	O	LYS	B	617	41.225	-14.556	86.140	1.00	42.28
2185	N	VAL	B	618	40.594	-14.712	84.039	1.00	40.89
2186	CA	VAL	B	618	41.186	-13.431	83.793	1.00	40.18
2187	CB	VAL	B	618	41.706	-13.349	82.385	1.00	40.55
2188	CG1	VAL	B	618	42.262	-11.973	82.120	1.00	44.64
2189	CG2	VAL	B	618	42.780	-14.535	82.162	1.00	41.80
2190	C	VAL	B	618	40.213	-12.346	83.975	1.00	38.00
2191	O	VAL	B	618	39.093	-12.485	83.503	1.00	39.02
2192	N	ILE	B	619	40.614	-11.229	84.559	1.00	38.05
2193	CA	ILE	B	619	39.694	-10.134	84.823	1.00	39.66
2194	CB	ILE	B	619	39.608	-9.832	86.309	1.00	40.93
2195	CG1	ILE	B	619	40.991	-9.612	86.979	1.00	38.06
2196	CD1	ILE	B	619	40.786	-9.252	88.632	1.00	36.23
2197	CG2	ILE	B	619	38.943	-11.004	87.102	1.00	40.94
2198	C	ILE	B	619	40.206	-8.870	84.202	1.00	43.93
2199	O	ILE	B	619	39.560	-7.812	84.237	1.00	42.87
2200	N	GLY	B	620	41.393	-8.925	83.623	1.00	45.17
2201	CA	GLY	B	620	41.915	-7.673	83.104	1.00	47.33
2202	C	GLY	B	620	43.224	-8.092	82.429	1.00	50.85
2203	O	GLY	B	620	43.871	-9.236	82.620	1.00	51.47
2204	N	ALA	B	621	43.595	-7.160	81.572	1.00	51.35

FIGURE 3AS

A	B	C	D	E	F	G	H	I	J
2205	CA	ALA	B	621	44.760	-7.184	80.745	1.00	53.88
2206	CB	ALA	B	621	44.426	-7.688	79.316	1.00	54.10
2207	C	ALA	B	621	45.299	-5.791	80.674	1.00	55.13
2208	O	ALA	B	621	44.828	-4.959	79.886	1.00	57.99
2209	N	GLY	B	622	46.264	-5.589	81.554	1.00	57.03
2210	CA	GLY	B	622	47.168	-4.483	81.562	1.00	59.11
2211	C	GLY	B	622	48.209	-4.562	80.477	1.00	58.66
2212	O	GLY	B	622	48.272	-5.501	79.641	1.00	59.00
2213	N	GLU	B	623	49.057	-3.532	80.510	1.00	59.69
2214	CA	GLU	B	623	50.174	-3.401	79.539	1.00	60.06
2215	CB	GLU	B	623	50.715	-1.953	79.435	1.00	61.65
2216	CG	GLU	B	623	51.576	-1.387	80.577	1.00	66.11
2217	CD	GLU	B	623	52.456	-0.197	80.080	1.00	77.25
2218	OE1	GLU	B	623	52.149	0.983	80.464	1.00	79.02
2219	OE2	GLU	B	623	53.437	-0.432	79.272	1.00	79.70
2220	C	GLU	B	623	51.309	-4.335	79.842	1.00	58.25
2221	O	GLU	B	623	52.235	-4.436	79.070	1.00	60.16
2222	N	PHE	B	624	51.275	-5.016	80.970	1.00	54.74
2223	CA	PHE	B	624	52.410	-5.847	81.262	1.00	51.99
2224	CB	PHE	B	624	52.789	-5.730	82.754	1.00	51.88
2225	CG	PHE	B	624	53.391	-4.399	83.133	1.00	54.02
2226	CD1	PHE	B	624	54.733	-4.102	82.907	1.00	55.50
2227	CE1	PHE	B	624	55.256	-2.813	83.249	1.00	56.20
2228	CZ	PHE	B	624	54.422	-1.780	83.816	1.00	56.45
2229	CE2	PHE	B	624	53.062	-2.046	84.037	1.00	52.77
2230	CD2	PHE	B	624	52.556	-3.379	83.686	1.00	56.55
2231	C	PHE	B	624	51.975	-7.269	80.865	1.00	50.15
2232	O	PHE	B	624	52.725	-8.128	80.468	1.00	50.83
2233	N	GLY	B	625	50.672	-7.410	80.863	1.00	47.48
2234	CA	GLY	B	625	50.054	-8.656	80.601	1.00	45.33
2235	C	GLY	B	625	48.716	-8.751	81.302	1.00	43.78
2236	O	GLY	B	625	48.093	-7.765	81.722	1.00	43.69
2237	N	GLU	B	626	48.326	-10.005	81.484	1.00	44.33
2238	CA	GLU	B	626	47.015	-10.291	82.001	1.00	43.81
2239	CB	GLU	B	626	46.732	-11.745	81.695	1.00	44.48
2240	CG	GLU	B	626	47.155	-12.117	80.292	1.00	51.57
2241	CD	GLU	B	626	45.953	-12.312	79.404	1.00	61.26
2242	OE1	GLU	B	626	45.469	-11.265	78.940	1.00	69.20
2243	OE2	GLU	B	626	45.429	-13.467	79.241	1.00	64.36
2244	C	GLU	B	626	46.908	-10.078	83.494	1.00	40.95
2245	O	GLU	B	626	47.921	-10.120	84.202	1.00	41.04
2246	N	VAL	B	627	45.674	-9.798	83.869	1.00	37.16
2247	CA	VAL	B	627	45.186	-9.710	85.213	1.00	35.92
2248	CB	VAL	B	627	44.730	-8.283	85.610	1.00	34.09
2249	CG1	VAL	B	627	44.433	-8.208	87.155	1.00	27.95
2250	CG2	VAL	B	627	45.864	-7.191	85.273	1.00	36.93
2251	C	VAL	B	627	44.123	-10.796	85.471	1.00	35.59
2252	O	VAL	B	627	43.112	-10.850	84.773	1.00	37.84
2253	N	TYR	B	628	44.407	-11.644	86.441	1.00	31.13
2254	CA	TYR	B	628	43.597	-12.753	86.884	1.00	31.63
2255	CB	TYR	B	628	44.497	-14.055	87.021	1.00	30.96
2256	CG	TYR	B	628	45.250	-14.532	85.752	1.00	30.76

FIGURE 3AT

A	B	C	D	E	F	G	H	I	J
2257	CD1	TYR	B	628	46.561	-14.097	85.486	1.00	28.48
2258	CE1	TYR	B	628	47.279	-14.488	84.434	1.00	30.85
2259	CZ	TYR	B	628	46.688	-15.369	83.475	1.00	38.38
2260	OH	TYR	B	628	47.394	-15.748	82.353	1.00	43.82
2261	CE2	TYR	B	628	45.377	-15.760	83.588	1.00	33.96
2262	CD2	TYR	B	628	44.636	-15.354	84.802	1.00	34.73
2263	C	TYR	B	628	43.038	-12.555	88.305	1.00	33.38
2264	O	TYR	B	628	43.643	-11.894	89.182	1.00	33.26
2265	N	LYS	B	629	41.975	-13.240	88.574	1.00	33.61
2266	CA	LYS	B	629	41.460	-13.260	89.864	1.00	36.43
2267	CB	LYS	B	629	39.965	-13.117	89.816	1.00	34.99
2268	CG	LYS	B	629	39.239	-14.031	90.690	1.00	42.88
2269	CD	LYS	B	629	39.362	-13.567	92.036	1.00	47.09
2270	CE	LYS	B	629	39.418	-14.774	92.959	1.00	51.42
2271	NZ	LYS	B	629	38.203	-15.510	93.282	1.00	38.62
2272	C	LYS	B	629	41.838	-14.646	90.264	1.00	38.05
2273	O	LYS	B	629	41.706	-15.573	89.484	1.00	34.96
2274	N	GLY	B	630	42.248	-14.773	91.520	1.00	39.79
2275	CA	GLY	B	630	42.714	-16.017	92.012	1.00	40.62
2276	C	GLY	B	630	42.659	-16.168	93.499	1.00	41.62
2277	O	GLY	B	630	41.952	-15.455	94.134	1.00	42.67
2278	N	MET	B	631	43.414	-17.122	94.046	1.00	42.11
2279	CA	MET	B	631	43.374	-17.424	95.471	1.00	40.08
2280	CB	MET	B	631	42.675	-18.782	95.697	1.00	39.40
2281	CG	MET	B	631	41.244	-18.772	95.422	1.00	36.74
2282	SD	MET	B	631	40.271	-17.481	96.157	1.00	46.24
2283	CE	MET	B	631	40.094	-18.103	98.007	1.00	44.76
2284	C	MET	B	631	44.847	-17.573	95.862	1.00	40.76
2285	O	MET	B	631	45.643	-18.078	95.080	1.00	38.68
2286	N	LEU	B	632	45.205	-17.167	97.064	1.00	41.51
2287	CA	LEU	B	632	46.542	-17.311	97.497	1.00	43.33
2288	CB	LEU	B	632	47.248	-15.967	97.744	1.00	43.33
2289	CG	LEU	B	632	48.602	-15.982	98.533	1.00	39.74
2290	CD1	LEU	B	632	49.835	-16.156	97.728	1.00	38.69
2291	CD2	LEU	B	632	48.819	-14.657	99.169	1.00	41.35
2292	C	LEU	B	632	46.389	-18.052	98.813	1.00	47.21
2293	O	LEU	B	632	45.547	-17.737	99.630	1.00	46.45
2294	N	ALA	B	633	47.235	-19.043	98.998	1.00	51.87
2295	CA	ALA	B	633	47.226	-19.803	100.227	1.00	56.44
2296	CB	ALA	B	633	47.668	-21.328	100.004	1.00	56.80
2297	C	ALA	B	633	48.165	-19.045	101.124	1.00	57.40
2298	O	ALA	B	633	49.243	-18.761	100.712	1.00	56.04
2299	N	THR	B	634	47.593	-18.599	102.247	1.00	61.86
2300	CA	THR	B	634	48.165	-17.932	103.448	1.00	65.92
2301	CB	THR	B	634	47.508	-16.513	103.700	1.00	67.32
2302	OG1	THR	B	634	46.250	-16.420	102.996	1.00	67.54
2303	CG2	THR	B	634	48.373	-15.309	103.123	1.00	69.80
2304	C	THR	B	634	47.620	-18.840	104.576	1.00	67.85
2305	O	THR	B	634	48.260	-19.118	105.602	1.00	70.48
2306	N	LYS	B	639	44.627	-20.684	106.044	1.00	68.69
2307	CA	LYS	B	639	43.550	-20.394	105.027	1.00	66.79
2308	CB	LYS	B	639	42.454	-19.415	105.557	1.00	67.15

FIGURE 3AU

A	B	C	D	E	F	G	H	I	J
2309	CG	LYS	B	639	42.933	-18.018	106.081	1.00	68.24
2310	CD	LYS	B	639	41.772	-17.136	106.688	1.00	74.03
2311	CE	LYS	B	639	41.759	-17.148	108.280	1.00	79.83
2312	NZ	LYS	B	639	41.868	-18.541	108.918	1.00	77.67
2313	C	LYS	B	639	44.048	-20.001	103.622	1.00	65.00
2314	O	LYS	B	639	45.070	-20.547	103.104	1.00	65.73
2315	N	GLU	B	640	43.302	-19.082	103.006	1.00	60.87
2316	CA	GLU	B	640	43.491	-18.779	101.612	1.00	57.13
2317	CB	GLU	B	640	42.992	-19.919	100.768	1.00	58.15
2318	CG	GLU	B	640	41.495	-19.957	100.494	1.00	60.04
2319	CD	GLU	B	640	41.096	-20.995	99.392	1.00	64.28
2320	OE1	GLU	B	640	39.891	-21.294	99.310	1.00	63.14
2321	OE2	GLU	B	640	41.957	-21.522	98.604	1.00	61.98
2322	C	GLU	B	640	42.667	-17.575	101.332	1.00	54.89
2323	O	GLU	B	640	41.528	-17.402	101.881	1.00	53.30
2324	N	VAL	B	641	43.261	-16.690	100.573	1.00	49.18
2325	CA	VAL	B	641	42.508	-15.531	100.324	1.00	48.68
2326	CB	VAL	B	641	42.994	-14.411	101.085	1.00	49.50
2327	CG1	VAL	B	641	44.390	-14.089	100.811	1.00	48.06
2328	CG2	VAL	B	641	42.291	-13.327	100.489	1.00	57.76
2329	C	VAL	B	641	42.394	-15.118	98.866	1.00	45.71
2330	O	VAL	B	641	43.174	-15.525	97.986	1.00	46.28
2331	N	PRO	B	642	41.310	-14.483	98.553	1.00	43.57
2332	CA	PRO	B	642	41.105	-14.052	97.166	1.00	40.99
2333	CB	PRO	B	642	39.607	-13.620	97.182	1.00	40.42
2334	CG	PRO	B	642	39.389	-13.154	98.678	1.00	41.18
2335	CD	PRO	B	642	40.063	-14.358	99.351	1.00	42.33
2336	C	PRO	B	642	42.062	-12.898	96.773	1.00	38.73
2337	O	PRO	B	642	42.234	-12.022	97.550	1.00	38.87
2338	N	VAL	B	643	42.659	-12.896	95.580	1.00	36.26
2339	CA	VAL	B	643	43.631	-11.916	95.253	1.00	35.27
2340	CB	VAL	B	643	44.920	-12.558	95.411	1.00	35.78
2341	CG1	VAL	B	643	45.284	-12.734	96.921	1.00	33.58
2342	CG2	VAL	B	643	44.782	-13.818	94.815	1.00	34.92
2343	C	VAL	B	643	43.508	-11.546	93.775	1.00	36.64
2344	O	VAL	B	643	43.123	-12.389	92.922	1.00	38.44
2345	N	ALA	B	644	43.893	-10.326	93.428	1.00	33.63
2346	CA	ALA	B	644	44.132	-10.046	91.975	1.00	33.25
2347	CB	ALA	B	644	43.934	-8.580	91.626	1.00	29.05
2348	C	ALA	B	644	45.585	-10.378	91.637	1.00	33.38
2349	O	ALA	B	644	46.510	-10.129	92.483	1.00	34.78
2350	N	ILE	B	645	45.812	-10.898	90.423	1.00	34.84
2351	CA	ILE	B	645	47.140	-11.220	89.994	1.00	34.70
2352	CB	ILE	B	645	47.222	-12.634	89.772	1.00	36.71
2353	CG1	ILE	B	645	46.794	-13.340	91.011	1.00	36.62
2354	CD1	ILE	B	645	46.106	-14.627	90.739	1.00	35.69
2355	CG2	ILE	B	645	48.668	-13.009	89.414	1.00	36.76
2356	C	ILE	B	645	47.509	-10.663	88.716	1.00	35.66
2357	O	ILE	B	645	46.933	-11.078	87.655	1.00	33.28
2358	N	LYS	B	646	48.576	-9.822	88.775	1.00	37.62
2359	CA	LYS	B	646	49.100	-9.156	87.627	1.00	39.51
2360	CB	LYS	B	646	49.392	-7.713	87.934	1.00	40.50

FIGURE 3AV

A	B	C	D	E	F	G	H	I	J
2361	CG	LYS	B	646	48.112	-6.902	88.103	1.00	43.92
2362	CD	LYS	B	646	48.459	-5.427	88.516	1.00	51.47
2363	CE	LYS	B	646	48.982	-4.629	87.354	1.00	57.30
2364	NZ	LYS	B	646	49.752	-3.453	87.904	1.00	62.15
2365	C	LYS	B	646	50.303	-9.865	87.182	1.00	42.10
2366	O	LYS	B	646	51.198	-10.125	87.959	1.00	43.88
2367	N	THR	B	647	50.265	-10.323	85.945	1.00	45.48
2368	CA	THR	B	647	51.429	-10.990	85.290	1.00	46.92
2369	CB	THR	B	647	50.985	-12.184	84.508	1.00	45.72
2370	OG1	THR	B	647	49.855	-11.807	83.714	1.00	49.53
2371	CG2	THR	B	647	50.425	-13.128	85.536	1.00	44.75
2372	C	THR	B	647	52.160	-10.155	84.313	1.00	47.24
2373	O	THR	B	647	51.699	-9.142	83.797	1.00	48.92
2374	N	LEU	B	648	53.351	-10.596	84.070	1.00	48.96
2375	CA	LEU	B	648	54.249	-9.855	83.227	1.00	50.53
2376	CB	LEU	B	648	55.590	-9.732	83.968	1.00	49.36
2377	CG	LEU	B	648	56.542	-8.585	83.642	1.00	48.99
2378	CD1	LEU	B	648	58.040	-8.996	83.579	1.00	48.58
2379	CD2	LEU	B	648	56.116	-7.850	82.381	1.00	43.45
2380	C	LEU	B	648	54.374	-10.784	82.043	1.00	51.82
2381	O	LEU	B	648	54.927	-11.893	82.196	1.00	52.19
2382	N	ALA	B	649	53.868	-10.417	80.869	1.00	54.10
2383	CA	ALA	B	649	54.004	-11.362	79.756	1.00	56.21
2384	CB	ALA	B	649	53.270	-10.894	78.487	1.00	58.42
2385	C	ALA	B	649	55.446	-11.687	79.395	1.00	56.49
2386	O	ALA	B	649	56.377	-10.974	79.740	1.00	56.04
2387	N	ALA	B	650	55.630	-12.811	78.718	1.00	56.23
2388	CA	ALA	B	650	56.941	-13.049	78.140	1.00	56.52
2389	CB	ALA	B	650	57.027	-14.433	77.525	1.00	57.04
2390	C	ALA	B	650	57.144	-11.965	77.057	1.00	56.58
2391	O	ALA	B	650	56.155	-11.510	76.413	1.00	56.42
2392	N	GLY	B	651	58.416	-11.595	76.834	1.00	55.88
2393	CA	GLY	B	651	58.778	-10.553	75.873	1.00	57.02
2394	C	GLY	B	651	59.312	-9.445	76.746	1.00	57.57
2395	O	GLY	B	651	59.712	-8.311	76.347	1.00	58.43
2396	N	TYR	B	652	59.366	-9.788	78.022	1.00	58.43
2397	CA	TYR	B	652	59.573	-8.682	78.940	1.00	57.59
2398	CB	TYR	B	652	59.435	-9.019	80.478	1.00	54.77
2399	CG	TYR	B	652	60.213	-10.134	81.202	1.00	56.20
2400	CD1	TYR	B	652	59.693	-11.415	81.380	1.00	57.11
2401	CE1	TYR	B	652	60.384	-12.382	82.148	1.00	54.44
2402	CZ	TYR	B	652	61.565	-12.044	82.766	1.00	59.06
2403	OH	TYR	B	652	62.237	-13.076	83.485	1.00	65.51
2404	CE2	TYR	B	652	62.093	-10.787	82.618	1.00	57.44
2405	CD2	TYR	B	652	61.426	-9.857	81.867	1.00	54.60
2406	C	TYR	B	652	60.713	-7.765	78.455	1.00	57.13
2407	O	TYR	B	652	61.890	-8.195	78.247	1.00	56.27
2408	N	THR	B	653	60.253	-6.536	78.165	1.00	59.21
2409	CA	THR	B	653	61.056	-5.309	77.938	1.00	61.19
2410	CB	THR	B	653	60.410	-4.127	78.740	1.00	62.43
2411	OG1	THR	B	653	58.961	-3.939	78.394	1.00	63.91
2412	CG2	THR	B	653	61.197	-2.732	78.552	1.00	59.49

FIGURE 3AW

A	B	C	D	E	F	G	H	I	J
2413	C	THR	B	653	62.510	-5.458	78.383	1.00	62.37
2414	O	THR	B	653	63.408	-5.096	77.655	1.00	63.93
2415	N	ALA	B	654	62.748	-6.047	79.537	1.00	65.18
2416	CA	ALA	B	654	64.118	-6.339	80.065	1.00	66.92
2417	CB	ALA	B	654	65.181	-6.632	78.995	1.00	68.35
2418	C	ALA	B	654	64.482	-5.184	80.915	1.00	67.15
2419	O	ALA	B	654	65.452	-5.259	81.675	1.00	68.11
2420	N	LYS	B	655	63.683	-4.123	80.723	1.00	65.70
2421	CA	LYS	B	655	63.542	-3.126	81.715	1.00	64.02
2422	CB	LYS	B	655	64.033	-1.755	81.277	1.00	64.04
2423	CG	LYS	B	655	62.873	-0.760	81.003	1.00	62.73
2424	CD	LYS	B	655	62.975	0.659	81.731	1.00	66.52
2425	CE	LYS	B	655	61.719	1.600	81.419	1.00	70.62
2426	NZ	LYS	B	655	61.431	3.073	82.018	1.00	71.15
2427	C	LYS	B	655	62.035	-3.062	81.945	1.00	64.99
2428	O	LYS	B	655	61.594	-2.189	82.707	1.00	65.05
2429	N	ALA	B	656	61.184	-3.849	81.273	1.00	65.62
2430	CA	ALA	B	656	59.741	-3.683	81.659	1.00	63.59
2431	CB	ALA	B	656	58.729	-4.389	80.698	1.00	63.21
2432	C	ALA	B	656	59.776	-4.378	83.002	1.00	63.77
2433	O	ALA	B	656	59.045	-4.059	83.953	1.00	65.32
2434	N	ALA	B	657	60.688	-5.343	83.081	1.00	62.81
2435	CA	ALA	B	657	60.896	-5.994	84.326	1.00	61.44
2436	CB	ALA	B	657	62.153	-6.830	84.259	1.00	62.87
2437	C	ALA	B	657	60.921	-5.063	85.578	1.00	61.39
2438	O	ALA	B	657	60.315	-5.374	86.615	1.00	60.78
2439	N	VAL	B	658	61.571	-3.906	85.517	1.00	60.99
2440	CA	VAL	B	658	61.752	-3.219	86.804	1.00	60.46
2441	CB	VAL	B	658	62.852	-2.176	86.857	1.00	60.81
2442	CG1	VAL	B	658	64.200	-2.834	86.665	1.00	62.51
2443	CG2	VAL	B	658	62.560	-1.118	85.803	1.00	62.91
2444	C	VAL	B	658	60.583	-2.403	87.005	1.00	59.81
2445	O	VAL	B	658	60.146	-2.289	88.146	1.00	58.61
2446	N	ASP	B	659	60.080	-1.838	85.890	1.00	58.44
2447	CA	ASP	B	659	58.911	-0.960	85.994	1.00	57.85
2448	CB	ASP	B	659	58.611	-0.274	84.666	1.00	58.73
2449	CG	ASP	B	659	59.082	1.150	84.657	1.00	62.54
2450	OD1	ASP	B	659	59.986	1.499	83.839	1.00	65.80
2451	OD2	ASP	B	659	58.612	1.992	85.486	1.00	70.42
2452	C	ASP	B	659	57.696	-1.717	86.556	1.00	55.40
2453	O	ASP	B	659	56.889	-1.170	87.285	1.00	54.47
2454	N	PHE	B	660	57.645	-2.993	86.222	1.00	53.30
2455	CA	PHE	B	660	56.616	-3.893	86.688	1.00	51.47
2456	CB	PHE	B	660	56.687	-5.210	85.888	1.00	50.03
2457	CG	PHE	B	660	55.699	-6.247	86.324	1.00	45.78
2458	CD1	PHE	B	660	54.375	-6.154	85.964	1.00	42.78
2459	CE1	PHE	B	660	53.495	-7.117	86.364	1.00	29.42
2460	CZ	PHE	B	660	53.919	-8.122	87.106	1.00	35.70
2461	CE2	PHE	B	660	55.234	-8.230	87.541	1.00	34.32
2462	CD2	PHE	B	660	56.092	-7.299	87.134	1.00	41.88
2463	C	PHE	B	660	56.809	-4.159	88.180	1.00	51.98
2464	O	PHE	B	660	55.970	-3.826	88.979	1.00	53.32

FIGURE 3AX

A	B	C	D	E	F	G	H	I	J
2465	N	LEU	B	661	57.867	-4.818	88.587	1.00	51.16
2466	CA	LEU	B	661	58.052	-4.986	90.025	1.00	49.90
2467	CB	LEU	B	661	59.410	-5.608	90.304	1.00	50.17
2468	CG	LEU	B	661	59.401	-7.101	89.967	1.00	49.47
2469	CD1	LEU	B	661	60.075	-7.725	91.087	1.00	49.31
2470	CD2	LEU	B	661	58.040	-7.634	90.013	1.00	47.87
2471	C	LEU	B	661	58.084	-3.654	90.722	1.00	48.85
2472	O	LEU	B	661	57.712	-3.584	91.846	1.00	52.10
2473	N	GLY	B	662	58.555	-2.595	90.098	1.00	46.78
2474	CA	GLY	B	662	58.683	-1.340	90.803	1.00	44.02
2475	C	GLY	B	662	57.361	-0.929	91.466	1.00	45.84
2476	O	GLY	B	662	57.336	-0.347	92.600	1.00	45.76
2477	N	GLU	B	663	56.258	-1.222	90.753	1.00	44.38
2478	CA	GLU	B	663	54.970	-0.787	91.194	1.00	43.00
2479	CB	GLU	B	663	53.843	-1.079	90.191	1.00	43.42
2480	CG	GLU	B	663	52.554	-1.313	91.003	1.00	48.94
2481	CD	GLU	B	663	51.261	-1.147	90.298	1.00	55.99
2482	OE1	GLU	B	663	50.348	-0.344	90.786	1.00	56.46
2483	OE2	GLU	B	663	51.131	-1.926	89.326	1.00	62.78
2484	C	GLU	B	663	54.735	-1.449	92.490	1.00	40.69
2485	O	GLU	B	663	54.243	-0.836	93.429	1.00	39.77
2486	N	ALA	B	664	55.147	-2.699	92.549	1.00	41.23
2487	CA	ALA	B	664	54.964	-3.521	93.768	1.00	42.51
2488	CB	ALA	B	664	55.361	-4.924	93.525	1.00	40.07
2489	C	ALA	B	664	55.811	-2.917	94.871	1.00	42.68
2490	O	ALA	B	664	55.438	-2.924	96.042	1.00	43.36
2491	N	GLY	B	665	56.960	-2.374	94.476	1.00	43.87
2492	CA	GLY	B	665	57.931	-1.819	95.439	1.00	43.94
2493	C	GLY	B	665	57.330	-0.667	96.169	1.00	43.52
2494	O	GLY	B	665	57.462	-0.519	97.381	1.00	44.23
2495	N	ILE	B	666	56.629	0.158	95.425	1.00	42.33
2496	CA	ILE	B	666	55.965	1.280	96.055	1.00	42.70
2497	CB	ILE	B	666	55.513	2.167	94.932	1.00	43.27
2498	CG1	ILE	B	666	56.724	2.800	94.203	1.00	40.47
2499	CD1	ILE	B	666	56.305	3.460	92.869	1.00	45.35
2500	CG2	ILE	B	666	54.692	3.137	95.468	1.00	42.19
2501	C	ILE	B	666	54.729	0.884	96.947	1.00	43.44
2502	O	ILE	B	666	54.624	1.234	98.167	1.00	43.04
2503	N	MET	B	667	53.817	0.140	96.328	1.00	42.32
2504	CA	MET	B	667	52.569	-0.368	96.938	1.00	42.19
2505	CB	MET	B	667	51.932	-1.230	95.817	1.00	41.53
2506	CG	MET	B	667	51.176	-2.507	96.165	1.00	47.32
2507	SD	MET	B	667	49.731	-2.572	94.829	1.00	52.61
2508	CE	MET	B	667	50.549	-1.966	93.551	1.00	44.11
2509	C	MET	B	667	52.855	-1.095	98.259	1.00	40.97
2510	O	MET	B	667	52.115	-1.057	99.249	1.00	40.07
2511	N	GLY	B	668	53.973	-1.762	98.310	1.00	41.23
2512	CA	GLY	B	668	54.340	-2.512	99.534	1.00	40.60
2513	C	GLY	B	668	54.751	-1.560	100.685	1.00	40.90
2514	O	GLY	B	668	54.848	-1.869	101.852	1.00	40.12
2515	N	GLN	B	669	54.995	-0.332	100.355	1.00	42.10
2516	CA	GLN	B	669	55.298	0.588	101.398	1.00	41.36

FIGURE 3AY

A	B	C	D	E	F	G	H	I	J
2517	CB	GLN	B	669	55.949	1.743	100.749	1.00	40.50
2518	CG	GLN	B	669	57.369	1.598	100.440	1.00	44.93
2519	CD	GLN	B	669	57.848	2.816	99.700	1.00	53.63
2520	OE1	GLN	B	669	57.922	3.974	100.272	1.00	55.16
2521	NE2	GLN	B	669	58.134	2.617	98.409	1.00	51.35
2522	C	GLN	B	669	53.996	1.102	102.075	1.00	43.35
2523	O	GLN	B	669	54.128	1.753	103.081	1.00	45.25
2524	N	PHE	B	670	52.769	0.833	101.553	1.00	41.08
2525	CA	PHE	B	670	51.612	1.398	102.134	1.00	37.80
2526	CB	PHE	B	670	50.688	2.045	101.056	1.00	37.43
2527	CG	PHE	B	670	51.446	2.912	100.086	1.00	36.83
2528	CD1	PHE	B	670	51.220	2.868	98.724	1.00	36.12
2529	CE1	PHE	B	670	51.971	3.676	97.852	1.00	41.89
2530	CZ	PHE	B	670	52.941	4.539	98.359	1.00	43.63
2531	CE2	PHE	B	670	53.078	4.636	99.746	1.00	39.81
2532	CD2	PHE	B	670	52.356	3.822	100.563	1.00	34.13
2533	C	PHE	B	670	50.888	0.359	102.865	1.00	35.75
2534	O	PHE	B	670	51.117	-0.756	102.607	1.00	31.50
2535	N	SER	B	671	50.178	0.774	103.923	1.00	35.37
2536	CA	SER	B	671	49.179	-0.001	104.556	1.00	35.63
2537	CB	SER	B	671	49.795	-0.920	105.584	1.00	37.05
2538	OG	SER	B	671	48.754	-1.432	106.452	1.00	35.05
2539	C	SER	B	671	48.009	0.915	105.119	1.00	35.05
2540	O	SER	B	671	48.061	1.604	106.184	1.00	36.76
2541	N	HIS	B	672	46.930	0.915	104.391	1.00	33.56
2542	CA	HIS	B	672	45.871	1.856	104.659	1.00	34.12
2543	CB	HIS	B	672	46.232	3.243	103.989	1.00	32.36
2544	CG	HIS	B	672	45.251	4.288	104.307	1.00	33.02
2545	ND1	HIS	B	672	44.080	4.461	103.586	1.00	33.28
2546	CE1	HIS	B	672	43.406	5.471	104.112	1.00	34.10
2547	NE2	HIS	B	672	44.044	5.886	105.198	1.00	38.41
2548	CD2	HIS	B	672	45.198	5.161	105.333	1.00	38.63
2549	C	HIS	B	672	44.633	1.308	104.017	1.00	33.03
2550	O	HIS	B	672	44.733	0.644	102.951	1.00	33.41
2551	N	HIS	B	673	43.502	1.611	104.635	1.00	30.53
2552	CA	HIS	B	673	42.230	1.095	104.299	1.00	31.97
2553	CB	HIS	B	673	41.296	1.817	105.206	1.00	30.58
2554	CG	HIS	B	673	39.877	1.451	105.083	1.00	37.08
2555	ND1	HIS	B	673	39.369	0.217	105.415	1.00	42.49
2556	CE1	HIS	B	673	38.051	0.245	105.241	1.00	43.15
2557	NE2	HIS	B	673	37.690	1.458	104.828	1.00	31.71
2558	CD2	HIS	B	673	38.814	2.217	104.721	1.00	39.22
2559	C	HIS	B	673	41.832	1.498	102.843	1.00	33.87
2560	O	HIS	B	673	40.989	0.910	102.229	1.00	34.38
2561	N	ASN	B	674	42.323	2.594	102.363	1.00	33.75
2562	CA	ASN	B	674	41.797	3.014	101.126	1.00	32.88
2563	CB	ASN	B	674	41.166	4.384	101.219	1.00	30.97
2564	CG	ASN	B	674	39.921	4.412	102.092	1.00	31.43
2565	OD1	ASN	B	674	38.806	3.959	101.636	1.00	30.88
2566	ND2	ASN	B	674	40.022	5.112	103.273	1.00	20.74
2567	C	ASN	B	674	42.854	2.913	100.080	1.00	31.69
2568	O	ASN	B	674	42.730	3.587	99.082	1.00	30.93

FIGURE 3AZ

A	B	C	D	E	F	G	H	I	J
2569	N	ILE	B	675	43.861	2.055	100.334	1.00	31.51
2570	CA	ILE	B	675	44.993	1.813	99.460	1.00	30.93
2571	CB	ILE	B	675	46.273	2.205	100.110	1.00	31.44
2572	CG1	ILE	B	675	46.250	3.687	100.454	1.00	28.51
2573	CD1	ILE	B	675	46.340	4.549	99.164	1.00	31.74
2574	CG2	ILE	B	675	47.486	2.026	99.005	1.00	22.20
2575	C	ILE	B	675	45.052	0.297	99.215	1.00	34.26
2576	O	ILE	B	675	44.924	-0.515	100.144	1.00	36.44
2577	N	ILE	B	676	45.186	-0.100	97.964	1.00	34.31
2578	CA	ILE	B	676	44.977	-1.451	97.663	1.00	34.35
2579	CB	ILE	B	676	44.919	-1.703	96.111	1.00	35.23
2580	CG1	ILE	B	676	44.509	-3.132	95.837	1.00	35.18
2581	CD1	ILE	B	676	42.941	-3.264	96.042	1.00	39.25
2582	CG2	ILE	B	676	46.229	-1.573	95.495	1.00	35.77
2583	C	ILE	B	676	46.143	-2.067	98.326	1.00	34.50
2584	O	ILE	B	676	47.226	-1.536	98.234	1.00	33.39
2585	N	ARG	B	677	45.933	-3.239	98.897	1.00	33.92
2586	CA	ARG	B	677	46.961	-3.942	99.559	1.00	33.57
2587	CB	ARG	B	677	46.317	-4.719	100.700	1.00	32.83
2588	CG	ARG	B	677	47.392	-5.572	101.445	1.00	35.49
2589	CD	ARG	B	677	46.901	-6.224	102.708	1.00	47.46
2590	NE	ARG	B	677	45.887	-7.206	102.394	1.00	52.58
2591	CZ	ARG	B	677	44.635	-7.100	102.814	1.00	59.96
2592	NH1	ARG	B	677	44.304	-6.024	103.587	1.00	55.86
2593	NH2	ARG	B	677	43.742	-8.063	102.463	1.00	56.27
2594	C	ARG	B	677	47.797	-4.926	98.720	1.00	34.17
2595	O	ARG	B	677	47.229	-5.704	97.993	1.00	36.51
2596	N	LEU	B	678	49.115	-4.899	98.837	1.00	33.13
2597	CA	LEU	B	678	50.033	-5.811	98.197	1.00	37.40
2598	CB	LEU	B	678	51.435	-5.236	98.159	1.00	36.36
2599	CG	LEU	B	678	52.397	-6.185	97.415	1.00	42.53
2600	CD1	LEU	B	678	51.911	-6.418	95.980	1.00	35.69
2601	CD2	LEU	B	678	53.852	-5.640	97.304	1.00	41.94
2602	C	LEU	B	678	50.171	-7.067	99.042	1.00	39.09
2603	O	LEU	B	678	50.517	-6.970	100.188	1.00	40.71
2604	N	GLU	B	679	49.836	-8.226	98.507	1.00	41.09
2605	CA	GLU	B	679	49.976	-9.417	99.253	1.00	42.38
2606	CB	GLU	B	679	49.026	-10.474	98.789	1.00	41.41
2607	CG	GLU	B	679	47.562	-10.172	99.081	1.00	45.00
2608	CD	GLU	B	679	47.179	-10.261	100.578	1.00	51.76
2609	OE1	GLU	B	679	47.778	-11.040	101.316	1.00	52.41
2610	OE2	GLU	B	679	46.290	-9.498	101.008	1.00	55.14
2611	C	GLU	B	679	51.363	-9.866	99.118	1.00	42.27
2612	O	GLU	B	679	51.912	-10.278	100.108	1.00	44.77
2613	N	GLY	B	680	51.973	-9.623	97.972	1.00	41.28
2614	CA	GLY	B	680	53.256	-10.180	97.623	1.00	41.26
2615	C	GLY	B	680	53.582	-10.240	96.127	1.00	42.91
2616	O	GLY	B	680	52.890	-9.669	95.349	1.00	42.87
2617	N	VAL	B	681	54.656	-10.893	95.716	1.00	44.63
2618	CA	VAL	B	681	55.060	-10.858	94.316	1.00	47.33
2619	CB	VAL	B	681	56.171	-9.792	93.916	1.00	47.94
2620	CG1	VAL	B	681	55.769	-8.411	94.202	1.00	48.45
2621	CG2	VAL	B	681	57.459	-10.075	94.630	1.00	47.53
2622	C	VAL	B	681	55.811	-12.121	94.003	1.00	49.45

FIGURE 3BA

A	B	C	D	E	F	G	H	I	J
2623	O	VAL	B	681	56.375	-12.823	94.891	1.00	48.56
2624	N	ILE	B	682	55.785	-12.422	92.707	1.00	50.88
2625	CA	ILE	B	682	56.648	-13.445	92.194	1.00	52.35
2626	CB	ILE	B	682	56.040	-14.781	92.219	1.00	52.57
2627	CG1	ILE	B	682	54.614	-14.850	91.771	1.00	54.23
2628	CD1	ILE	B	682	53.863	-16.059	92.607	1.00	42.89
2629	CG2	ILE	B	682	55.622	-14.986	93.632	1.00	48.84
2630	C	ILE	B	682	57.528	-13.017	91.033	1.00	54.22
2631	O	ILE	B	682	57.085	-12.426	89.997	1.00	54.69
2632	N	SER	B	683	58.806	-13.061	91.420	1.00	56.54
2633	CA	SER	B	683	60.026	-12.729	90.672	1.00	59.27
2634	CB	SER	B	683	60.835	-11.648	91.417	1.00	57.57
2635	OG	SER	B	683	61.114	-12.079	92.783	1.00	64.03
2636	C	SER	B	683	60.691	-14.088	90.824	1.00	60.75
2637	O	SER	B	683	60.093	-15.011	91.285	1.00	61.98
2638	N	ALA	B	684	61.921	-14.287	90.467	1.00	64.16
2639	CA	ALA	B	684	62.404	-15.660	90.662	1.00	65.44
2640	CB	ALA	B	684	62.426	-16.045	92.155	1.00	65.45
2641	C	ALA	B	684	61.607	-16.690	89.844	1.00	65.59
2642	O	ALA	B	684	62.156	-17.667	89.411	1.00	66.62
2643	N	TYR	B	685	60.320	-16.489	89.629	1.00	65.92
2644	CA	TYR	B	685	59.566	-17.433	88.808	1.00	65.61
2645	CB	TYR	B	685	58.513	-18.132	89.646	1.00	66.23
2646	CG	TYR	B	685	59.148	-19.196	90.468	1.00	69.68
2647	CD1	TYR	B	685	59.519	-18.961	91.769	1.00	67.64
2648	CE1	TYR	B	685	60.131	-19.935	92.519	1.00	71.61
2649	CZ	TYR	B	685	60.433	-21.157	91.970	1.00	74.46
2650	OH	TYR	B	685	61.042	-22.113	92.750	1.00	75.04
2651	CE2	TYR	B	685	60.081	-21.448	90.663	1.00	75.00
2652	CD2	TYR	B	685	59.446	-20.453	89.905	1.00	75.26
2653	C	TYR	B	685	58.964	-16.788	87.581	1.00	65.25
2654	O	TYR	B	685	58.899	-15.527	87.499	1.00	66.17
2655	N	ALA	B	686	58.551	-17.617	86.612	1.00	63.68
2656	CA	ALA	B	686	58.036	-17.091	85.334	1.00	62.32
2657	CB	ALA	B	686	58.506	-17.805	84.124	1.00	63.30
2658	C	ALA	B	686	56.596	-17.082	85.432	1.00	62.05
2659	O	ALA	B	686	56.007	-18.119	85.775	1.00	63.53
2660	N	PRO	B	687	56.081	-16.278	84.593	1.00	60.53
2661	CA	PRO	B	687	55.343	-15.047	84.649	1.00	58.99
2662	CB	PRO	B	687	53.882	-15.447	84.418	1.00	58.56
2663	CG	PRO	B	687	53.888	-16.897	84.821	1.00	60.26
2664	CD	PRO	B	687	55.173	-17.326	84.077	1.00	61.17
2665	C	PRO	B	687	55.589	-14.602	86.037	1.00	56.90
2666	O	PRO	B	687	55.308	-15.358	86.974	1.00	56.82
2667	N	MET	B	688	56.186	-13.428	86.143	1.00	55.27
2668	CA	MET	B	688	56.320	-12.750	87.404	1.00	54.44
2669	CB	MET	B	688	57.223	-11.566	87.255	1.00	55.33
2670	CG	MET	B	688	58.596	-11.932	86.692	1.00	55.74
2671	SD	MET	B	688	59.901	-11.043	87.530	1.00	60.68
2672	CE	MET	B	688	60.394	-9.447	86.370	1.00	57.44
2673	C	MET	B	688	54.924	-12.281	87.695	1.00	53.73
2674	O	MET	B	688	54.115	-11.957	86.766	1.00	55.62
2675	N	MET	B	689	54.593	-12.326	88.964	1.00	49.82
2676	CA	MET	B	689	53.314	-11.945	89.372	1.00	45.50

FIGURE 3BB

A	B	C	D	E	F	G	H	I	J
2677	CB	MET	B	689	52.726	-13.198	89.919	1.00	46.09
2678	CG	MET	B	689	52.209	-14.107	88.832	1.00	42.85
2679	SD	MET	B	689	51.622	-15.683	89.528	1.00	50.11
2680	CE	MET	B	689	50.901	-16.233	88.146	1.00	42.03
2681	C	MET	B	689	53.460	-10.876	90.439	1.00	44.44
2682	O	MET	B	689	54.468	-10.868	91.193	1.00	43.66
2683	N	ILE	B	690	52.546	-9.929	90.420	1.00	40.55
2684	CA	ILE	B	690	52.358	-8.991	91.483	1.00	39.05
2685	CB	ILE	B	690	52.225	-7.585	90.904	1.00	41.79
2686	CG1	ILE	B	690	53.596	-6.955	90.607	1.00	40.50
2687	CD1	ILE	B	690	53.501	-5.528	89.890	1.00	37.73
2688	CG2	ILE	B	690	51.421	-6.707	91.895	1.00	38.75
2689	C	ILE	B	690	50.932	-9.386	91.986	1.00	38.72
2690	O	ILE	B	690	49.971	-9.343	91.192	1.00	36.41
2691	N	ILE	B	691	50.807	-9.788	93.255	1.00	38.28
2692	CA	ILE	B	691	49.587	-10.296	93.856	1.00	37.73
2693	CB	ILE	B	691	49.904	-11.537	94.642	1.00	37.57
2694	CG1	ILE	B	691	50.662	-12.539	93.759	1.00	43.22
2695	CD1	ILE	B	691	49.780	-13.030	92.551	1.00	43.78
2696	CG2	ILE	B	691	48.666	-12.175	95.178	1.00	33.95
2697	C	ILE	B	691	48.965	-9.298	94.809	1.00	37.68
2698	O	ILE	B	691	49.621	-8.935	95.803	1.00	38.31
2699	N	THR	B	692	47.707	-8.901	94.597	1.00	36.61
2700	CA	THR	B	692	47.089	-7.867	95.484	1.00	35.83
2701	CB	THR	B	692	46.777	-6.579	94.767	1.00	34.36
2702	OG1	THR	B	692	46.064	-6.922	93.582	1.00	36.12
2703	CG2	THR	B	692	48.064	-5.799	94.178	1.00	32.38
2704	C	THR	B	692	45.788	-8.406	96.022	1.00	36.80
2705	O	THR	B	692	45.333	-9.470	95.601	1.00	38.54
2706	N	GLU	B	693	45.145	-7.663	96.924	1.00	37.13
2707	CA	GLU	B	693	43.857	-8.165	97.503	1.00	36.04
2708	CB	GLU	B	693	43.424	-7.317	98.719	1.00	33.77
2709	CG	GLU	B	693	43.251	-5.824	98.385	1.00	36.54
2710	CD	GLU	B	693	42.731	-4.903	99.522	1.00	37.60
2711	OE1	GLU	B	693	43.250	-3.736	99.716	1.00	38.54
2712	OE2	GLU	B	693	41.720	-5.266	100.137	1.00	42.02
2713	C	GLU	B	693	42.821	-8.028	96.364	1.00	35.07
2714	O	GLU	B	693	42.890	-7.067	95.588	1.00	35.55
2715	N	TYR	B	694	41.845	-8.911	96.272	1.00	32.10
2716	CA	TYR	B	694	40.970	-8.809	95.150	1.00	28.28
2717	CB	TYR	B	694	40.440	-10.153	94.874	1.00	28.39
2718	CG	TYR	B	694	39.351	-10.217	93.769	1.00	32.24
2719	CD1	TYR	B	694	39.617	-9.921	92.416	1.00	28.95
2720	CE1	TYR	B	694	38.566	-10.081	91.432	1.00	33.82
2721	CZ	TYR	B	694	37.375	-10.533	91.790	1.00	31.62
2722	OH	TYR	B	694	36.297	-10.655	90.899	1.00	37.93
2723	CE2	TYR	B	694	37.108	-10.758	93.113	1.00	35.35
2724	CD2	TYR	B	694	38.076	-10.619	94.080	1.00	35.75
2725	C	TYR	B	694	39.814	-7.896	95.538	1.00	28.69
2726	O	TYR	B	694	39.243	-8.023	96.662	1.00	28.77
2727	N	MET	B	695	39.475	-6.996	94.627	1.00	25.99
2728	CA	MET	B	695	38.480	-6.015	94.790	1.00	28.69

FIGURE 3BC

A	B	C	D	E	F	G	H	I	J
2729	CB	MET	B	695	39.057	-4.593	94.582	1.00	27.01
2730	CG	MET	B	695	40.089	-4.121	95.806	1.00	26.26
2731	SD	MET	B	695	39.137	-4.002	97.332	1.00	29.69
2732	CE	MET	B	695	38.140	-2.317	96.950	1.00	19.49
2733	C	MET	B	695	37.337	-6.451	93.887	1.00	30.89
2734	O	MET	B	695	37.371	-6.254	92.716	1.00	35.87
2735	N	GLU	B	696	36.406	-7.188	94.437	1.00	31.23
2736	CA	GLU	B	696	35.369	-7.846	93.720	1.00	32.82
2737	CB	GLU	B	696	34.419	-8.666	94.666	1.00	30.79
2738	CG	GLU	B	696	33.717	-7.643	95.469	1.00	38.13
2739	CD	GLU	B	696	33.271	-8.107	96.846	1.00	48.34
2740	OE1	GLU	B	696	32.877	-9.291	96.897	1.00	61.33
2741	OE2	GLU	B	696	33.160	-7.330	97.803	1.00	43.84
2742	C	GLU	B	696	34.529	-7.028	92.836	1.00	32.02
2743	O	GLU	B	696	33.781	-7.625	92.021	1.00	31.01
2744	N	ASN	B	697	34.505	-5.694	92.943	1.00	33.21
2745	CA	ASN	B	697	33.694	-4.999	91.904	1.00	31.07
2746	CB	ASN	B	697	32.725	-4.026	92.537	1.00	30.83
2747	CG	ASN	B	697	31.440	-4.657	92.940	1.00	34.34
2748	OD1	ASN	B	697	30.947	-5.594	92.243	1.00	34.99
2749	ND2	ASN	B	697	30.834	-4.156	94.055	1.00	28.78
2750	C	ASN	B	697	34.630	-4.265	90.926	1.00	31.59
2751	O	ASN	B	697	34.193	-3.413	90.103	1.00	31.69
2752	N	GLY	B	698	35.910	-4.526	90.990	1.00	29.27
2753	CA	GLY	B	698	36.768	-3.815	90.060	1.00	29.77
2754	C	GLY	B	698	36.882	-2.261	90.054	1.00	29.16
2755	O	GLY	B	698	36.746	-1.550	91.056	1.00	31.76
2756	N	ALA	B	699	37.160	-1.773	88.888	1.00	27.39
2757	CA	ALA	B	699	37.387	-0.402	88.524	1.00	26.35
2758	CB	ALA	B	699	37.888	-0.293	87.086	1.00	25.30
2759	C	ALA	B	699	36.179	0.215	88.629	1.00	27.91
2760	O	ALA	B	699	35.168	-0.299	88.130	1.00	30.28
2761	N	LEU	B	700	36.280	1.357	89.268	1.00	29.27
2762	CA	LEU	B	700	35.121	2.026	89.707	1.00	32.33
2763	CB	LEU	B	700	35.450	3.069	90.838	1.00	29.30
2764	CG	LEU	B	700	34.459	4.089	91.301	1.00	31.76
2765	CD1	LEU	B	700	33.464	3.627	92.353	1.00	30.61
2766	CD2	LEU	B	700	35.145	5.322	91.920	1.00	28.14
2767	C	LEU	B	700	34.449	2.671	88.617	1.00	30.67
2768	O	LEU	B	700	33.279	2.926	88.812	1.00	32.59
2769	N	ASP	B	701	35.175	3.092	87.584	1.00	28.67
2770	CA	ASP	B	701	34.475	3.801	86.542	1.00	33.44
2771	CB	ASP	B	701	35.382	4.505	85.575	1.00	33.00
2772	CG	ASP	B	701	36.230	3.542	84.702	1.00	38.53
2773	OD1	ASP	B	701	36.810	2.573	85.221	1.00	37.75
2774	OD2	ASP	B	701	36.395	3.751	83.440	1.00	40.32
2775	C	ASP	B	701	33.529	2.791	85.837	1.00	33.01
2776	O	ASP	B	701	32.301	3.048	85.715	1.00	32.42
2777	N	LYS	B	702	34.074	1.635	85.538	1.00	30.90
2778	CA	LYS	B	702	33.249	0.568	84.960	1.00	35.12
2779	CB	LYS	B	702	34.186	-0.548	84.449	1.00	37.13
2780	CG	LYS	B	702	33.542	-1.537	83.686	1.00	47.55

FIGURE 3BD

A	B	C	D	E	F	G	H	I	J
2781	CD	LYS	B	702	34.296	-2.821	83.631	1.00	60.43
2782	CE	LYS	B	702	33.493	-3.758	82.740	1.00	63.91
2783	NZ	LYS	B	702	34.151	-5.137	82.655	1.00	69.98
2784	C	LYS	B	702	32.158	0.088	85.872	1.00	35.34
2785	O	LYS	B	702	31.006	-0.038	85.504	1.00	36.22
2786	N	PHE	B	703	32.421	-0.020	87.179	1.00	37.97
2787	CA	PHE	B	703	31.403	-0.517	88.060	1.00	34.72
2788	CB	PHE	B	703	31.980	-0.605	89.436	1.00	35.11
2789	CG	PHE	B	703	30.985	-0.877	90.473	1.00	29.25
2790	CD1	PHE	B	703	30.252	-2.115	90.505	1.00	27.25
2791	CE1	PHE	B	703	29.389	-2.361	91.525	1.00	29.92
2792	CZ	PHE	B	703	29.256	-1.467	92.569	1.00	29.83
2793	CE2	PHE	B	703	29.913	-0.313	92.538	1.00	29.77
2794	CD2	PHE	B	703	30.785	0.001	91.443	1.00	30.63
2795	C	PHE	B	703	30.265	0.452	88.121	1.00	36.80
2796	O	PHE	B	703	29.032	0.086	88.137	1.00	37.46
2797	N	LEU	B	704	30.622	1.724	88.157	1.00	36.09
2798	CA	LEU	B	704	29.567	2.730	88.283	1.00	35.58
2799	CB	LEU	B	704	30.162	4.112	88.554	1.00	36.04
2800	CG	LEU	B	704	30.722	4.526	89.921	1.00	39.33
2801	CD1	LEU	B	704	31.453	5.870	89.856	1.00	39.49
2802	CD2	LEU	B	704	29.689	4.488	91.097	1.00	39.49
2803	C	LEU	B	704	28.723	2.859	87.005	1.00	35.48
2804	O	LEU	B	704	27.545	3.304	87.050	1.00	36.13
2805	N	ARG	B	705	29.342	2.607	85.865	1.00	36.71
2806	CA	ARG	B	705	28.645	2.652	84.601	1.00	37.41
2807	CB	ARG	B	705	29.599	2.330	83.433	1.00	37.84
2808	CG	ARG	B	705	30.260	3.590	82.802	1.00	34.77
2809	CD	ARG	B	705	30.660	3.455	81.367	1.00	41.95
2810	NE	ARG	B	705	31.988	2.810	81.271	1.00	42.52
2811	CZ	ARG	B	705	33.068	3.374	81.792	1.00	45.05
2812	NH1	ARG	B	705	34.261	2.852	81.678	1.00	42.04
2813	NH2	ARG	B	705	32.913	4.565	82.399	1.00	40.02
2814	C	ARG	B	705	27.609	1.598	84.550	1.00	40.12
2815	O	ARG	B	705	26.733	1.639	83.716	1.00	43.46
2816	N	GLU	B	706	27.773	0.561	85.322	1.00	41.24
2817	CA	GLU	B	706	26.916	-0.555	85.216	1.00	43.79
2818	CB	GLU	B	706	27.684	-1.832	85.558	1.00	46.45
2819	CG	GLU	B	706	28.385	-2.583	84.416	1.00	53.31
2820	CD	GLU	B	706	29.070	-3.871	85.011	1.00	65.10
2821	OE1	GLU	B	706	28.273	-4.757	85.532	1.00	68.07
2822	OE2	GLU	B	706	30.368	-4.034	84.995	1.00	63.05
2823	C	GLU	B	706	25.852	-0.364	86.216	1.00	43.47
2824	O	GLU	B	706	24.864	-1.051	86.164	1.00	45.43
2825	N	LYS	B	707	26.029	0.565	87.117	1.00	43.14
2826	CA	LYS	B	707	25.013	0.851	88.098	1.00	44.44
2827	CB	LYS	B	707	25.584	0.449	89.490	1.00	46.43
2828	CG	LYS	B	707	26.172	-1.029	89.491	1.00	44.84
2829	CD	LYS	B	707	25.573	-1.880	90.569	1.00	43.24
2830	CE	LYS	B	707	25.352	-3.405	90.147	1.00	48.65
2831	NZ	LYS	B	707	24.010	-3.911	90.629	1.00	46.05
2832	C	LYS	B	707	24.448	2.319	88.048	1.00	43.63

FIGURE 3BE

A	B	C	D	E	F	G	H	I	J
2833	O	LYS	B	707	23.968	2.911	89.012	1.00	43.30
2834	N	ASP	B	708	24.510	2.886	86.899	1.00	43.40
2835	CA	ASP	B	708	24.061	4.208	86.688	1.00	45.41
2836	CB	ASP	B	708	23.816	4.329	85.214	1.00	45.17
2837	CG	ASP	B	708	23.571	5.756	84.769	1.00	51.04
2838	OD1	ASP	B	708	23.369	5.861	83.513	1.00	56.65
2839	OD2	ASP	B	708	23.578	6.789	85.536	1.00	50.26
2840	C	ASP	B	708	22.776	4.514	87.400	1.00	46.40
2841	O	ASP	B	708	21.809	3.760	87.256	1.00	48.89
2842	N	GLY	B	709	22.748	5.610	88.155	1.00	45.59
2843	CA	GLY	B	709	21.516	6.076	88.791	1.00	45.68
2844	C	GLY	B	709	21.043	5.454	90.056	1.00	45.97
2845	O	GLY	B	709	20.134	5.987	90.790	1.00	45.98
2846	N	GLU	B	710	21.713	4.355	90.402	1.00	46.33
2847	CA	GLU	B	710	21.266	3.524	91.498	1.00	44.07
2848	CB	GLU	B	710	21.639	2.091	91.156	1.00	43.37
2849	CG	GLU	B	710	21.240	1.530	89.788	1.00	45.17
2850	CD	GLU	B	710	21.407	0.012	89.910	1.00	50.33
2851	OE1	GLU	B	710	21.591	-0.451	91.103	1.00	57.24
2852	OE2	GLU	B	710	21.522	-0.675	88.894	1.00	45.95
2853	C	GLU	B	710	21.845	3.640	92.888	1.00	45.39
2854	O	GLU	B	710	21.521	2.760	93.718	1.00	47.34
2855	N	PHE	B	711	22.760	4.543	93.196	1.00	43.13
2856	CA	PHE	B	711	23.200	4.589	94.566	1.00	40.55
2857	CB	PHE	B	711	24.679	4.658	94.597	1.00	39.03
2858	CG	PHE	B	711	25.276	3.409	94.246	1.00	42.05
2859	CD1	PHE	B	711	26.050	3.281	93.108	1.00	38.47
2860	CE1	PHE	B	711	26.599	2.064	92.802	1.00	39.65
2861	CZ	PHE	B	711	26.275	0.880	93.622	1.00	41.38
2862	CE2	PHE	B	711	25.452	1.062	94.740	1.00	34.06
2863	CD2	PHE	B	711	24.989	2.245	95.050	1.00	37.46
2864	C	PHE	B	711	22.626	5.863	95.009	1.00	40.79
2865	O	PHE	B	711	22.154	6.588	94.204	1.00	41.46
2866	N	SER	B	712	22.638	6.126	96.287	1.00	42.27
2867	CA	SER	B	712	22.217	7.392	96.828	1.00	43.06
2868	CB	SER	B	712	22.065	7.169	98.297	1.00	41.23
2869	OG	SER	B	712	23.405	7.227	98.787	1.00	49.09
2870	C	SER	B	712	23.457	8.292	96.753	1.00	43.66
2871	O	SER	B	712	24.613	7.773	96.636	1.00	45.02
2872	N	VAL	B	713	23.235	9.574	96.953	1.00	42.17
2873	CA	VAL	B	713	24.207	10.574	96.853	1.00	42.95
2874	CB	VAL	B	713	23.524	11.961	97.062	1.00	44.89
2875	CG1	VAL	B	713	24.513	13.096	97.189	1.00	44.06
2876	CG2	VAL	B	713	22.675	12.272	95.826	1.00	48.34
2877	C	VAL	B	713	25.151	10.328	97.995	1.00	43.30
2878	O	VAL	B	713	26.361	10.633	97.881	1.00	41.24
2879	N	LEU	B	714	24.607	9.742	99.082	1.00	42.36
2880	CA	LEU	B	714	25.412	9.441	100.294	1.00	42.34
2881	CB	LEU	B	714	24.549	8.997	101.456	1.00	41.80
2882	CG	LEU	B	714	24.175	10.104	102.419	1.00	45.27
2883	CD1	LEU	B	714	23.237	9.593	103.631	1.00	45.36
2884	CD2	LEU	B	714	25.513	10.577	102.995	1.00	43.80

FIGURE 3BF

A	B	C	D	E	F	G	H	I	J
2885	C	LEU	B	714	26.436	8.393	99.951	1.00	40.57
2886	O	LEU	B	714	27.671	8.526	100.117	1.00	40.01
2887	N	GLN	B	715	25.900	7.402	99.314	1.00	40.78
2888	CA	GLN	B	715	26.755	6.362	98.870	1.00	40.81
2889	CB	GLN	B	715	25.933	5.288	98.183	1.00	40.42
2890	CG	GLN	B	715	25.177	4.515	99.255	1.00	40.01
2891	CD	GLN	B	715	24.070	3.635	98.723	1.00	44.67
2892	OE1	GLN	B	715	23.548	3.831	97.622	1.00	44.92
2893	NE2	GLN	B	715	23.716	2.651	99.517	1.00	48.08
2894	C	GLN	B	715	27.860	6.935	98.036	1.00	39.80
2895	O	GLN	B	715	29.054	6.675	98.339	1.00	42.92
2896	N	LEU	B	716	27.532	7.760	97.064	1.00	36.73
2897	CA	LEU	B	716	28.556	8.274	96.227	1.00	35.84
2898	CB	LEU	B	716	27.903	9.036	95.104	1.00	37.36
2899	CG	LEU	B	716	27.084	8.148	94.217	1.00	36.58
2900	CD1	LEU	B	716	26.356	9.177	93.311	1.00	46.24
2901	CD2	LEU	B	716	27.996	7.350	93.371	1.00	37.81
2902	C	LEU	B	716	29.573	9.163	96.975	1.00	36.89
2903	O	LEU	B	716	30.819	9.095	96.782	1.00	36.93
2904	N	VAL	B	717	29.051	10.026	97.831	1.00	37.35
2905	CA	VAL	B	717	29.898	10.905	98.613	1.00	36.10
2906	CB	VAL	B	717	28.967	11.708	99.387	1.00	37.20
2907	CG1	VAL	B	717	29.667	12.776	100.344	1.00	33.48
2908	CG2	VAL	B	717	28.088	12.401	98.375	1.00	38.82
2909	C	VAL	B	717	30.870	10.002	99.410	1.00	38.05
2910	O	VAL	B	717	32.154	10.206	99.454	1.00	37.55
2911	N	GLY	B	718	30.264	8.952	99.981	1.00	36.80
2912	CA	GLY	B	718	31.042	8.022	100.772	1.00	33.97
2913	C	GLY	B	718	32.163	7.457	100.020	1.00	34.81
2914	O	GLY	B	718	33.349	7.436	100.512	1.00	37.01
2915	N	MET	B	719	31.892	7.099	98.779	1.00	34.31
2916	CA	MET	B	719	33.019	6.609	97.959	1.00	31.67
2917	CB	MET	B	719	32.491	6.176	96.577	1.00	32.74
2918	CG	MET	B	719	31.662	4.841	96.825	1.00	35.62
2919	SD	MET	B	719	30.875	4.103	95.295	1.00	55.32
2920	CE	MET	B	719	30.945	5.495	94.494	1.00	42.34
2921	C	MET	B	719	34.081	7.610	97.784	1.00	30.03
2922	O	MET	B	719	35.279	7.293	97.765	1.00	32.08
2923	N	LEU	B	720	33.687	8.847	97.618	1.00	30.17
2924	CA	LEU	B	720	34.667	9.890	97.346	1.00	33.37
2925	CB	LEU	B	720	33.986	11.242	96.935	1.00	32.33
2926	CG	LEU	B	720	33.343	11.032	95.575	1.00	38.69
2927	CD1	LEU	B	720	32.375	12.150	95.300	1.00	38.75
2928	CD2	LEU	B	720	34.427	10.867	94.495	1.00	35.80
2929	C	LEU	B	720	35.489	10.109	98.597	1.00	32.85
2930	O	LEU	B	720	36.671	10.336	98.518	1.00	31.06
2931	N	ARG	B	721	34.809	10.018	99.755	1.00	34.48
2932	CA	ARG	B	721	35.496	10.144	100.996	1.00	33.62
2933	CB	ARG	B	721	34.472	10.122	102.146	1.00	35.11
2934	CG	ARG	B	721	35.051	10.679	103.478	1.00	34.63
2935	CD	ARG	B	721	35.575	9.494	104.326	1.00	39.88
2936	NE	ARG	B	721	36.004	9.899	105.636	1.00	43.02

FIGURE 3BG

A	B	C	D	E	F	G	H	I	J
2937	CZ	ARG	B	721	36.937	9.323	106.397	1.00	45.17
2938	NH1	ARG	B	721	37.612	8.271	105.961	1.00	40.58
2939	NH2	ARG	B	721	37.213	9.851	107.611	1.00	38.32
2940	C	ARG	B	721	36.678	9.202	101.170	1.00	31.50
2941	O	ARG	B	721	37.783	9.594	101.591	1.00	32.33
2942	N	GLY	B	722	36.429	7.940	100.919	1.00	30.70
2943	CA	GLY	B	722	37.450	6.885	100.918	1.00	24.89
2944	C	GLY	B	722	38.535	7.253	99.976	1.00	26.45
2945	O	GLY	B	722	39.751	7.161	100.307	1.00	27.04
2946	N	ILE	B	723	38.180	7.638	98.764	1.00	24.68
2947	CA	ILE	B	723	39.285	7.928	97.861	1.00	25.69
2948	CB	ILE	B	723	38.728	8.341	96.509	1.00	25.40
2949	CG1	ILE	B	723	38.089	7.129	95.744	1.00	23.38
2950	CD1	ILE	B	723	36.956	7.550	94.656	1.00	17.00
2951	CG2	ILE	B	723	39.915	8.818	95.562	1.00	25.42
2952	C	ILE	B	723	40.040	9.056	98.437	1.00	27.97
2953	O	ILE	B	723	41.273	9.063	98.412	1.00	29.92
2954	N	ALA	B	724	39.321	10.112	98.878	1.00	27.72
2955	CA	ALA	B	724	40.055	11.203	99.382	1.00	31.14
2956	CB	ALA	B	724	39.092	12.388	99.837	1.00	30.09
2957	C	ALA	B	724	40.994	10.756	100.578	1.00	32.43
2958	O	ALA	B	724	42.102	11.293	100.707	1.00	36.23
2959	N	ALA	B	725	40.599	9.778	101.386	1.00	32.15
2960	CA	ALA	B	725	41.367	9.437	102.613	1.00	33.49
2961	CB	ALA	B	725	40.465	8.568	103.649	1.00	31.16
2962	C	ALA	B	725	42.563	8.658	102.180	1.00	33.06
2963	O	ALA	B	725	43.630	8.759	102.838	1.00	36.69
2964	N	GLY	B	726	42.407	7.837	101.134	1.00	29.85
2965	CA	GLY	B	726	43.519	7.036	100.688	1.00	26.93
2966	C	GLY	B	726	44.531	8.080	100.151	1.00	31.48
2967	O	GLY	B	726	45.699	7.946	100.370	1.00	28.56
2968	N	MET	B	727	44.033	9.136	99.451	1.00	32.07
2969	CA	MET	B	727	44.899	10.121	98.846	1.00	33.27
2970	CB	MET	B	727	44.051	10.999	97.853	1.00	33.40
2971	CG	MET	B	727	43.815	10.423	96.365	1.00	31.54
2972	SD	MET	B	727	45.180	9.612	95.806	1.00	35.66
2973	CE	MET	B	727	46.441	10.934	95.492	1.00	31.92
2974	C	MET	B	727	45.618	10.984	100.018	1.00	33.03
2975	O	MET	B	727	46.780	11.331	99.892	1.00	31.10
2976	N	LYS	B	728	44.889	11.344	101.078	1.00	33.25
2977	CA	LYS	B	728	45.494	12.060	102.185	1.00	35.83
2978	CB	LYS	B	728	44.516	12.292	103.204	1.00	36.03
2979	CG	LYS	B	728	45.095	12.999	104.451	1.00	41.39
2980	CD	LYS	B	728	44.169	12.657	105.549	1.00	49.57
2981	CE	LYS	B	728	44.504	13.360	106.868	1.00	58.31
2982	NZ	LYS	B	728	44.561	12.303	107.986	1.00	63.45
2983	C	LYS	B	728	46.658	11.233	102.743	1.00	38.33
2984	O	LYS	B	728	47.792	11.753	103.065	1.00	39.63
2985	N	TYR	B	729	46.494	9.922	102.617	1.00	36.94
2986	CA	TYR	B	729	47.452	9.075	103.219	1.00	36.82
2987	CB	TYR	B	729	46.858	7.693	103.663	1.00	34.05
2988	CG	TYR	B	729	47.899	6.657	103.835	1.00	34.37

FIGURE 3BH

A	B	C	D	E	F	G	H	I	J
2989	CD1	TYR	B	729	48.409	6.323	105.122	1.00	31.09
2990	CE1	TYR	B	729	49.368	5.343	105.286	1.00	25.86
2991	CZ	TYR	B	729	49.864	4.733	104.160	1.00	32.58
2992	OH	TYR	B	729	50.764	3.772	104.302	1.00	30.28
2993	CE2	TYR	B	729	49.369	5.022	102.863	1.00	28.90
2994	CD2	TYR	B	729	48.343	5.918	102.735	1.00	28.62
2995	C	TYR	B	729	48.625	9.040	102.348	1.00	38.24
2996	O	TYR	B	729	49.760	9.011	102.837	1.00	40.23
2997	N	LEU	B	730	48.419	9.012	101.057	1.00	37.36
2998	CA	LEU	B	730	49.598	8.971	100.182	1.00	38.39
2999	CB	LEU	B	730	49.161	8.801	98.691	1.00	38.07
3000	CG	LEU	B	730	49.096	7.274	98.506	1.00	40.77
3001	CD1	LEU	B	730	48.033	6.879	97.535	1.00	46.74
3002	CD2	LEU	B	730	50.540	6.625	98.141	1.00	40.15
3003	C	LEU	B	730	50.415	10.239	100.271	1.00	36.79
3004	O	LEU	B	730	51.565	10.238	100.325	1.00	35.87
3005	N	ALA	B	731	49.753	11.330	100.211	1.00	38.07
3006	CA	ALA	B	731	50.421	12.597	100.382	1.00	41.33
3007	CB	ALA	B	731	49.377	13.802	100.342	1.00	35.88
3008	C	ALA	B	731	51.191	12.559	101.743	1.00	41.93
3009	O	ALA	B	731	52.353	12.861	101.784	1.00	41.92
3010	N	ASN	B	732	50.556	12.176	102.837	1.00	43.62
3011	CA	ASN	B	732	51.340	12.240	104.035	1.00	45.24
3012	CB	ASN	B	732	50.558	11.897	105.275	1.00	45.55
3013	CG	ASN	B	732	49.605	12.947	105.613	1.00	45.67
3014	OD1	ASN	B	732	49.792	14.047	105.114	1.00	45.78
3015	ND2	ASN	B	732	48.503	12.620	106.390	1.00	42.26
3016	C	ASN	B	732	52.439	11.247	103.945	1.00	46.19
3017	O	ASN	B	732	53.250	11.259	104.809	1.00	48.18
3018	N	MET	B	733	52.475	10.319	102.986	1.00	45.55
3019	CA	MET	B	733	53.611	9.396	102.967	1.00	42.71
3020	CB	MET	B	733	53.181	8.051	102.457	1.00	43.29
3021	CG	MET	B	733	52.418	7.229	103.469	1.00	44.11
3022	SD	MET	B	733	53.390	6.662	104.809	1.00	45.37
3023	CE	MET	B	733	54.537	5.722	104.067	1.00	43.23
3024	C	MET	B	733	54.473	10.030	101.973	1.00	43.07
3025	O	MET	B	733	55.449	9.447	101.489	1.00	39.67
3026	N	ASN	B	734	54.114	11.288	101.639	1.00	45.47
3027	CA	ASN	B	734	54.895	11.978	100.620	1.00	45.76
3028	CB	ASN	B	734	56.293	12.036	101.146	1.00	48.02
3029	CG	ASN	B	734	56.917	13.372	100.855	1.00	55.08
3030	OD1	ASN	B	734	57.998	13.441	100.227	1.00	57.65
3031	ND2	ASN	B	734	56.191	14.466	101.227	1.00	57.16
3032	C	ASN	B	734	55.017	11.329	99.233	1.00	44.84
3033	O	ASN	B	734	56.122	11.359	98.598	1.00	45.91
3034	N	TYR	B	735	53.933	10.733	98.723	1.00	43.14
3035	CA	TYR	B	735	53.846	10.348	97.298	1.00	39.99
3036	CB	TYR	B	735	53.511	8.904	97.196	1.00	42.06
3037	CG	TYR	B	735	54.612	7.939	97.303	1.00	39.82
3038	CD1	TYR	B	735	55.073	7.272	96.195	1.00	40.71
3039	CE1	TYR	B	735	56.143	6.364	96.327	1.00	49.17
3040	CZ	TYR	B	735	56.659	6.076	97.610	1.00	49.26

FIGURE 3BI

A	B	C	D	E	F	G	H	I	J
3041	OH	TYR	B	735	57.681	5.174	97.808	1.00	53.69
3042	CE2	TYR	B	735	56.180	6.710	98.706	1.00	46.44
3043	CD2	TYR	B	735	55.118	7.596	98.563	1.00	44.21
3044	C	TYR	B	735	52.766	11.131	96.513	1.00	40.01
3045	O	TYR	B	735	51.681	11.403	97.063	1.00	38.30
3046	N	VAL	B	736	53.084	11.534	95.242	1.00	39.05
3047	CA	VAL	B	736	52.155	12.135	94.317	1.00	37.57
3048	CB	VAL	B	736	52.978	12.826	93.220	1.00	40.62
3049	CG1	VAL	B	736	52.210	13.815	92.384	1.00	40.34
3050	CG2	VAL	B	736	54.164	13.336	93.780	1.00	46.41
3051	C	VAL	B	736	51.824	10.887	93.435	1.00	37.17
3052	O	VAL	B	736	52.735	10.241	92.930	1.00	29.75
3053	N	HIS	B	737	50.539	10.633	93.185	1.00	37.35
3054	CA	HIS	B	737	50.106	9.466	92.371	1.00	37.48
3055	CB	HIS	B	737	48.645	9.217	92.703	1.00	37.46
3056	CG	HIS	B	737	48.149	7.922	92.212	1.00	38.36
3057	ND1	HIS	B	737	47.788	7.709	90.894	1.00	33.89
3058	CE1	HIS	B	737	47.448	6.446	90.753	1.00	38.45
3059	NE2	HIS	B	737	47.527	5.845	91.941	1.00	38.58
3060	CD2	HIS	B	737	48.022	6.737	92.850	1.00	36.23
3061	C	HIS	B	737	50.310	9.689	90.885	1.00	37.35
3062	O	HIS	B	737	50.900	8.930	90.179	1.00	37.49
3063	N	ARG	B	738	49.921	10.862	90.420	1.00	41.12
3064	CA	ARG	B	738	50.156	11.215	89.025	1.00	41.82
3065	CB	ARG	B	738	51.548	10.752	88.576	1.00	42.45
3066	CG	ARG	B	738	52.900	11.362	89.171	1.00	43.81
3067	CD	ARG	B	738	53.934	12.099	88.306	1.00	50.41
3068	NE	ARG	B	738	54.475	11.640	87.014	1.00	59.49
3069	CZ	ARG	B	738	55.049	10.452	86.751	1.00	66.23
3070	NH1	ARG	B	738	55.115	9.499	87.671	1.00	66.49
3071	NH2	ARG	B	738	55.533	10.202	85.535	1.00	66.53
3072	C	ARG	B	738	49.061	10.581	88.104	1.00	42.10
3073	O	ARG	B	738	48.853	11.056	87.025	1.00	42.38
3074	N	ASP	B	739	48.304	9.578	88.572	1.00	40.65
3075	CA	ASP	B	739	47.402	8.839	87.683	1.00	37.25
3076	CB	ASP	B	739	48.098	7.585	87.132	1.00	36.50
3077	CG	ASP	B	739	47.447	7.043	85.859	1.00	39.77
3078	OD1	ASP	B	739	46.714	7.845	85.259	1.00	35.07
3079	OD2	ASP	B	739	47.588	5.843	85.423	1.00	38.97
3080	C	ASP	B	739	46.159	8.470	88.383	1.00	33.96
3081	O	ASP	B	739	45.641	7.385	88.230	1.00	33.13
3082	N	LEU	B	740	45.612	9.440	89.054	1.00	32.76
3083	CA	LEU	B	740	44.385	9.304	89.792	1.00	32.28
3084	CB	LEU	B	740	44.218	10.378	90.903	1.00	28.90
3085	CG	LEU	B	740	42.918	10.273	91.633	1.00	31.41
3086	CD1	LEU	B	740	42.750	8.844	92.335	1.00	29.24
3087	CD2	LEU	B	740	42.714	11.301	92.751	1.00	31.09
3088	C	LEU	B	740	43.230	9.487	88.854	1.00	33.40
3089	O	LEU	B	740	42.972	10.631	88.367	1.00	32.41
3090	N	ALA	B	741	42.375	8.464	88.851	1.00	32.10
3091	CA	ALA	B	741	41.256	8.492	87.939	1.00	31.90
3092	CB	ALA	B	741	41.795	8.228	86.473	1.00	25.99

FIGURE 3BJ

A	B	C	D	E	F	G	H	I	J
3093	C	ALA	B	741	40.361	7.405	88.402	1.00	30.39
3094	O	ALA	B	741	40.849	6.468	89.090	1.00	32.43
3095	N	ALA	B	742	39.091	7.450	87.997	1.00	30.00
3096	CA	ALA	B	742	38.230	6.405	88.434	1.00	28.92
3097	CB	ALA	B	742	36.771	6.688	88.146	1.00	32.43
3098	C	ALA	B	742	38.702	5.046	87.904	1.00	31.77
3099	O	ALA	B	742	38.551	4.078	88.607	1.00	30.25
3100	N	ARG	B	743	39.282	4.907	86.696	1.00	31.71
3101	CA	ARG	B	743	39.685	3.568	86.348	1.00	32.57
3102	CB	ARG	B	743	40.311	3.530	84.893	1.00	30.75
3103	CG	ARG	B	743	41.249	4.519	84.625	1.00	29.61
3104	CD	ARG	B	743	42.260	4.076	83.465	1.00	43.52
3105	NE	ARG	B	743	43.297	5.113	83.400	1.00	45.54
3106	CZ	ARG	B	743	42.950	6.342	83.147	1.00	45.33
3107	NH1	ARG	B	743	41.651	6.558	82.868	1.00	38.16
3108	NH2	ARG	B	743	43.844	7.305	83.199	1.00	38.31
3109	C	ARG	B	743	40.697	3.045	87.291	1.00	32.35
3110	O	ARG	B	743	41.122	1.917	87.211	1.00	33.13
3111	N	ASN	B	744	41.306	3.909	88.055	1.00	33.51
3112	CA	ASN	B	744	42.357	3.337	88.857	1.00	32.87
3113	CB	ASN	B	744	43.651	4.144	88.701	1.00	33.36
3114	CG	ASN	B	744	44.393	3.813	87.400	1.00	34.78
3115	OD1	ASN	B	744	44.062	2.792	86.820	1.00	48.21
3116	ND2	ASN	B	744	45.248	4.718	86.851	1.00	31.64
3117	C	ASN	B	744	41.888	3.251	90.300	1.00	34.12
3118	O	ASN	B	744	42.689	3.242	91.157	1.00	36.14
3119	N	ILE	B	745	40.592	3.314	90.558	1.00	32.33
3120	CA	ILE	B	745	40.098	3.112	91.861	1.00	31.92
3121	CB	ILE	B	745	39.154	4.230	92.239	1.00	31.00
3122	CG1	ILE	B	745	39.824	5.704	92.215	1.00	32.78
3123	CD1	ILE	B	745	41.204	5.701	92.993	1.00	32.89
3124	CG2	ILE	B	745	38.602	3.943	93.507	1.00	25.39
3125	C	ILE	B	745	39.347	1.767	91.809	1.00	32.48
3126	O	ILE	B	745	38.592	1.602	90.864	1.00	32.62
3127	N	LEU	B	746	39.593	0.833	92.752	1.00	29.93
3128	CA	LEU	B	746	38.994	-0.526	92.790	1.00	28.79
3129	CB	LEU	B	746	40.047	-1.578	93.158	1.00	27.96
3130	CG	LEU	B	746	41.188	-1.793	92.142	1.00	27.80
3131	CD1	LEU	B	746	42.431	-2.746	92.482	1.00	36.80
3132	CD2	LEU	B	746	40.582	-2.251	90.857	1.00	32.27
3133	C	LEU	B	746	37.941	-0.457	93.907	1.00	31.64
3134	O	LEU	B	746	38.176	0.242	94.933	1.00	32.71
3135	N	VAL	B	747	36.752	-1.061	93.727	1.00	32.95
3136	CA	VAL	B	747	35.729	-0.956	94.751	1.00	33.60
3137	CB	VAL	B	747	34.337	-0.627	94.211	1.00	35.06
3138	CG1	VAL	B	747	33.569	0.153	95.190	1.00	32.73
3139	CG2	VAL	B	747	34.311	-0.145	92.802	1.00	36.08
3140	C	VAL	B	747	35.379	-2.348	95.139	1.00	32.18
3141	O	VAL	B	747	35.438	-3.132	94.271	1.00	32.47
3142	N	ASN	B	748	34.809	-2.569	96.331	1.00	31.01
3143	CA	ASN	B	748	34.300	-3.873	96.670	1.00	32.11
3144	CB	ASN	B	748	35.076	-4.503	97.805	1.00	29.71

FIGURE 3BK

A	B	C	D	E	F	G	H	I	J
3145	CG	ASN	B	748	34.872	-3.789	99.093	1.00	30.19
3146	OD1	ASN	B	748	34.002	-2.965	99.154	1.00	29.21
3147	ND2	ASN	B	748	35.724	-4.051	100.145	1.00	27.55
3148	C	ASN	B	748	32.782	-3.847	96.880	1.00	32.91
3149	O	ASN	B	748	32.137	-2.821	96.558	1.00	34.46
3150	N	SER	B	749	32.200	-4.931	97.392	1.00	31.86
3151	CA	SER	B	749	30.779	-4.924	97.589	1.00	32.16
3152	CB	SER	B	749	30.203	-6.341	97.762	1.00	33.15
3153	OG	SER	B	749	30.792	-7.147	98.772	1.00	33.73
3154	C	SER	B	749	30.390	-4.108	98.724	1.00	33.33
3155	O	SER	B	749	29.213	-3.877	98.965	1.00	31.39
3156	N	ASN	B	750	31.368	-3.666	99.517	1.00	34.87
3157	CA	ASN	B	750	30.972	-2.694	100.547	1.00	35.09
3158	CB	ASN	B	750	31.781	-2.859	101.809	1.00	37.06
3159	CG	ASN	B	750	31.421	-4.146	102.582	1.00	41.91
3160	OD1	ASN	B	750	30.278	-4.661	102.549	1.00	38.82
3161	ND2	ASN	B	750	32.424	-4.652	103.275	1.00	46.14
3162	C	ASN	B	750	31.082	-1.295	100.025	1.00	34.62
3163	O	ASN	B	750	30.760	-0.354	100.737	1.00	36.26
3164	N	LEU	B	751	31.385	-1.151	98.738	1.00	31.97
3165	CA	LEU	B	751	31.511	0.150	98.134	1.00	33.21
3166	CB	LEU	B	751	30.275	1.085	98.379	1.00	33.30
3167	CG	LEU	B	751	28.944	0.583	97.933	1.00	29.08
3168	CD1	LEU	B	751	27.770	1.538	97.936	1.00	34.22
3169	CD2	LEU	B	751	29.187	0.432	96.569	1.00	25.04
3170	C	LEU	B	751	32.774	0.820	98.675	1.00	31.97
3171	O	LEU	B	751	32.932	1.949	98.482	1.00	32.37
3172	N	VAL	B	752	33.673	0.112	99.330	1.00	31.80
3173	CA	VAL	B	752	34.884	0.756	99.838	1.00	32.23
3174	CB	VAL	B	752	35.557	-0.206	100.847	1.00	34.25
3175	CG1	VAL	B	752	36.916	0.159	101.117	1.00	28.08
3176	CG2	VAL	B	752	34.701	-0.310	102.072	1.00	27.86
3177	C	VAL	B	752	35.761	0.974	98.604	1.00	34.48
3178	O	VAL	B	752	35.900	0.035	97.753	1.00	33.89
3179	N	CYS	B	753	36.345	2.183	98.450	1.00	34.53
3180	CA	CYS	B	753	37.139	2.463	97.238	1.00	33.46
3181	CB	CYS	B	753	36.667	3.795	96.590	1.00	32.57
3182	SG	CYS	B	753	35.024	3.589	95.866	1.00	33.85
3183	C	CYS	B	753	38.595	2.504	97.641	1.00	32.87
3184	O	CYS	B	753	38.918	2.994	98.661	1.00	33.65
3185	N	LYS	B	754	39.490	2.019	96.815	1.00	31.25
3186	CA	LYS	B	754	40.879	2.069	97.142	1.00	28.59
3187	CB	LYS	B	754	41.393	0.682	97.601	1.00	28.62
3188	CG	LYS	B	754	40.612	0.009	98.777	1.00	25.26
3189	CD	LYS	B	754	41.255	-1.359	99.092	1.00	26.47
3190	CE	LYS	B	754	40.451	-2.186	100.084	1.00	31.42
3191	NZ	LYS	B	754	41.028	-2.117	101.467	1.00	36.53
3192	C	LYS	B	754	41.659	2.488	95.931	1.00	29.63
3193	O	LYS	B	754	41.451	1.951	94.764	1.00	29.44
3194	N	VAL	B	755	42.643	3.336	96.190	1.00	28.68
3195	CA	VAL	B	755	43.512	3.819	95.158	1.00	30.76
3196	CB	VAL	B	755	44.484	4.852	95.681	1.00	29.87

FIGURE 3BL

A	B	C	D	E	F	G	H	I	J
3197	CG1	VAL	B	755	45.380	5.460	94.520	1.00	26.20
3198	CG2	VAL	B	755	43.750	5.907	96.257	1.00	28.72
3199	C	VAL	B	755	44.391	2.708	94.759	1.00	31.83
3200	O	VAL	B	755	44.894	2.059	95.618	1.00	30.86
3201	N	SER	B	756	44.722	2.641	93.486	1.00	33.08
3202	CA	SER	B	756	45.431	1.545	92.914	1.00	36.43
3203	CB	SER	B	756	44.472	0.481	92.259	1.00	37.70
3204	OG	SER	B	756	45.281	-0.617	91.571	1.00	40.69
3205	C	SER	B	756	46.368	2.061	91.849	1.00	37.72
3206	O	SER	B	756	46.466	3.263	91.576	1.00	37.99
3207	N	ASP	B	757	46.978	1.130	91.147	1.00	38.48
3208	CA	ASP	B	757	47.861	1.499	90.074	1.00	41.72
3209	CB	ASP	B	757	47.023	1.917	88.888	1.00	41.39
3210	CG	ASP	B	757	47.849	1.913	87.574	1.00	50.91
3211	OD1	ASP	B	757	47.211	2.091	86.487	1.00	51.60
3212	OD2	ASP	B	757	49.141	1.757	87.558	1.00	52.69
3213	C	ASP	B	757	49.001	2.490	90.467	1.00	41.65
3214	O	ASP	B	757	48.943	3.671	90.267	1.00	41.11
3215	N	PHE	B	758	50.076	1.995	91.048	1.00	43.52
3216	CA	PHE	B	758	51.087	2.948	91.493	1.00	44.14
3217	CB	PHE	B	758	51.525	2.631	92.952	1.00	43.50
3218	CG	PHE	B	758	50.456	2.888	93.920	1.00	38.35
3219	CD1	PHE	B	758	50.308	4.177	94.499	1.00	33.03
3220	CE1	PHE	B	758	49.233	4.488	95.392	1.00	33.75
3221	CZ	PHE	B	758	48.282	3.458	95.734	1.00	35.68
3222	CE2	PHE	B	758	48.419	2.141	95.050	1.00	35.33
3223	CD2	PHE	B	758	49.531	1.901	94.184	1.00	37.29
3224	C	PHE	B	758	52.199	3.247	90.454	1.00	45.65
3225	O	PHE	B	758	53.160	4.088	90.646	1.00	46.52
3226	N	GLY	B	759	51.903	2.709	89.282	1.00	46.03
3227	CA	GLY	B	759	52.617	2.856	88.048	1.00	47.12
3228	C	GLY	B	759	53.353	4.173	87.857	1.00	50.02
3229	O	GLY	B	759	54.588	4.163	87.553	1.00	53.05
3230	N	LEU	B	760	52.664	5.294	87.911	1.00	46.21
3231	CA	LEU	B	760	53.371	6.532	87.683	1.00	47.41
3232	CB	LEU	B	760	52.504	7.502	86.833	1.00	46.97
3233	CG	LEU	B	760	52.025	7.054	85.450	1.00	52.65
3234	CD1	LEU	B	760	51.187	8.062	84.659	1.00	51.82
3235	CD2	LEU	B	760	53.252	6.691	84.637	1.00	51.03
3236	C	LEU	B	760	53.628	7.284	88.974	1.00	47.35
3237	O	LEU	B	760	53.755	8.468	88.928	1.00	47.23
3238	N	SER	B	761	53.643	6.672	90.144	1.00	48.54
3239	CA	SER	B	761	53.583	7.610	91.262	1.00	49.64
3240	CB	SER	B	761	52.674	7.066	92.329	1.00	47.14
3241	OG	SER	B	761	53.142	5.812	92.428	1.00	48.99
3242	C	SER	B	761	54.965	7.803	91.813	1.00	50.77
3243	O	SER	B	761	55.814	6.895	91.672	1.00	51.89
3244	N	ARG	B	762	55.227	8.947	92.427	1.00	50.64
3245	CA	ARG	B	762	56.576	9.132	92.940	1.00	51.02
3246	CB	ARG	B	762	57.561	9.689	91.897	1.00	52.96
3247	CG	ARG	B	762	57.051	10.548	90.775	1.00	55.70
3248	CD	ARG	B	762	57.559	10.114	89.374	1.00	67.92

FIGURE 3BM

A	B	C	D	E	F	G	H	I	J
3249	NE	ARG	B	762	57.115	8.769	88.974	1.00	75.81
3250	CZ	ARG	B	762	57.530	8.088	87.860	1.00	79.84
3251	NH1	ARG	B	762	57.034	6.858	87.589	1.00	77.74
3252	NH2	ARG	B	762	58.432	8.624	87.030	1.00	79.01
3253	C	ARG	B	762	56.692	9.874	94.202	1.00	50.69
3254	O	ARG	B	762	55.762	10.587	94.600	1.00	50.50
3255	N	VAL	B	763	57.834	9.667	94.879	1.00	52.25
3256	CA	VAL	B	763	58.143	10.438	96.111	1.00	53.91
3257	CB	VAL	B	763	59.438	9.932	96.770	1.00	56.45
3258	CG1	VAL	B	763	59.822	10.769	98.058	1.00	53.41
3259	CG2	VAL	B	763	59.293	8.431	97.046	1.00	53.98
3260	C	VAL	B	763	58.323	11.921	95.757	1.00	52.61
3261	O	VAL	B	763	58.998	12.205	94.849	1.00	52.54
3262	N	ALA	B	764	57.680	12.818	96.460	1.00	53.25
3263	CA	ALA	B	764	57.640	14.215	96.083	1.00	55.20
3264	CB	ALA	B	764	56.842	15.013	97.079	1.00	55.95
3265	C	ALA	B	764	58.997	14.901	95.822	1.00	58.47
3266	O	ALA	B	764	60.011	14.667	96.486	1.00	58.95
3267	N	ALA	B	778	52.512	8.707	77.650	1.00	63.16
3268	CA	ALA	B	778	53.274	9.379	78.726	1.00	64.24
3269	CB	ALA	B	778	54.203	10.520	78.164	1.00	63.79
3270	C	ALA	B	778	52.320	9.882	79.851	1.00	63.12
3271	O	ALA	B	778	52.320	9.355	80.966	1.00	63.11
3272	N	ILE	B	779	51.472	10.863	79.572	1.00	61.82
3273	CA	ILE	B	779	50.565	11.342	80.639	1.00	59.71
3274	CB	ILE	B	779	51.075	12.717	81.033	1.00	60.71
3275	CG1	ILE	B	779	52.166	12.503	82.090	1.00	62.19
3276	CD1	ILE	B	779	53.432	13.193	81.727	1.00	66.21
3277	CG2	ILE	B	779	49.943	13.685	81.434	1.00	62.88
3278	C	ILE	B	779	49.010	11.248	80.435	1.00	57.07
3279	O	ILE	B	779	48.552	11.065	79.280	1.00	55.98
3280	N	PRO	B	780	48.228	11.201	81.549	1.00	54.65
3281	CA	PRO	B	780	46.770	11.559	81.509	1.00	52.75
3282	CB	PRO	B	780	46.321	11.448	82.969	1.00	53.47
3283	CG	PRO	B	780	47.247	10.442	83.543	1.00	51.28
3284	CD	PRO	B	780	48.603	10.801	82.915	1.00	54.55
3285	C	PRO	B	780	46.610	12.952	81.191	1.00	50.88
3286	O	PRO	B	780	46.988	13.770	82.008	1.00	56.60
3287	N	ILE	B	781	46.112	13.222	80.017	1.00	46.48
3288	CA	ILE	B	781	45.849	14.560	79.767	1.00	43.01
3289	CB	ILE	B	781	45.897	14.790	78.286	1.00	41.97
3290	CG1	ILE	B	781	47.316	15.269	78.013	1.00	45.31
3291	CD1	ILE	B	781	48.308	14.194	77.831	1.00	50.28
3292	CG2	ILE	B	781	45.107	15.941	77.979	1.00	38.03
3293	C	ILE	B	781	44.611	15.023	80.581	1.00	40.95
3294	O	ILE	B	781	44.748	15.814	81.489	1.00	40.34
3295	N	ARG	B	782	43.460	14.431	80.284	1.00	41.60
3296	CA	ARG	B	782	42.166	14.646	80.837	1.00	38.55
3297	CB	ARG	B	782	41.127	13.968	79.858	1.00	40.91
3298	CG	ARG	B	782	40.395	12.734	80.126	1.00	39.72
3299	CD	ARG	B	782	40.142	12.040	78.779	1.00	44.03
3300	NE	ARG	B	782	38.977	12.556	78.126	1.00	50.70

FIGURE 3BN

A	B	C	D	E	F	G	H	I	J
3301	CZ	ARG	B	782	38.978	13.000	76.853	1.00	52.30
3302	NH1	ARG	B	782	37.828	13.451	76.324	1.00	46.70
3303	NH2	ARG	B	782	40.126	13.022	76.153	1.00	44.94
3304	C	ARG	B	782	42.033	14.486	82.369	1.00	36.84
3305	O	ARG	B	782	41.124	15.127	82.932	1.00	37.92
3306	N	TRP	B	783	42.986	13.873	83.062	1.00	35.41
3307	CA	TRP	B	783	42.931	13.863	84.548	1.00	36.23
3308	CB	TRP	B	783	43.045	12.446	85.168	1.00	35.36
3309	CG	TRP	B	783	41.939	11.580	84.894	1.00	34.89
3310	CD1	TRP	B	783	40.959	11.347	85.728	1.00	34.55
3311	NE1	TRP	B	783	40.032	10.518	85.152	1.00	35.15
3312	CE2	TRP	B	783	40.417	10.196	83.889	1.00	28.35
3313	CD2	TRP	B	783	41.611	10.885	83.662	1.00	29.59
3314	CE3	TRP	B	783	42.243	10.720	82.424	1.00	33.66
3315	CZ3	TRP	B	783	41.642	9.873	81.461	1.00	39.20
3316	CH2	TRP	B	783	40.386	9.270	81.697	1.00	30.32
3317	CZ2	TRP	B	783	39.750	9.394	82.892	1.00	26.79
3318	C	TRP	B	783	44.019	14.767	85.182	1.00	37.26
3319	O	TRP	B	783	44.078	14.934	86.462	1.00	32.75
3320	N	THR	B	784	44.868	15.335	84.294	1.00	38.13
3321	CA	THR	B	784	46.074	16.069	84.782	1.00	38.14
3322	CB	THR	B	784	47.220	15.822	83.921	1.00	38.22
3323	OG1	THR	B	784	47.407	14.394	83.791	1.00	32.84
3324	CG2	THR	B	784	48.499	16.365	84.574	1.00	27.62
3325	C	THR	B	784	45.959	17.558	84.819	1.00	42.12
3326	O	THR	B	784	45.451	18.183	83.855	1.00	44.07
3327	N	ALA	B	785	46.415	18.118	85.944	1.00	42.78
3328	CA	ALA	B	785	46.490	19.525	86.209	1.00	42.20
3329	CB	ALA	B	785	47.126	19.714	87.503	1.00	41.73
3330	C	ALA	B	785	47.330	20.250	85.152	1.00	42.59
3331	O	ALA	B	785	48.358	19.707	84.633	1.00	41.88
3332	N	PRO	B	786	46.867	21.443	84.823	1.00	41.88
3333	CA	PRO	B	786	47.509	22.281	83.783	1.00	43.28
3334	CB	PRO	B	786	46.514	23.437	83.610	1.00	42.82
3335	CG	PRO	B	786	45.682	23.472	84.854	1.00	38.60
3336	CD	PRO	B	786	45.625	22.022	85.316	1.00	40.34
3337	C	PRO	B	786	48.937	22.647	84.199	1.00	44.36
3338	O	PRO	B	786	49.876	22.335	83.415	1.00	43.75
3339	N	GLU	B	787	49.161	23.067	85.458	1.00	47.66
3340	CA	GLU	B	787	50.585	23.216	85.879	1.00	48.56
3341	CB	GLU	B	787	50.799	23.521	87.366	1.00	50.25
3342	CG	GLU	B	787	50.506	22.415	88.438	1.00	47.77
3343	CD	GLU	B	787	49.055	22.343	88.835	1.00	45.14
3344	OE1	GLU	B	787	48.239	23.053	88.217	1.00	47.89
3345	OE2	GLU	B	787	48.675	21.581	89.750	1.00	48.40
3346	C	GLU	B	787	51.413	22.011	85.524	1.00	48.85
3347	O	GLU	B	787	52.601	22.103	85.448	1.00	49.02
3348	N	ALA	B	788	50.810	20.871	85.240	1.00	50.59
3349	CA	ALA	B	788	51.630	19.703	85.119	1.00	52.43
3350	CB	ALA	B	788	51.138	18.650	85.984	1.00	53.63
3351	C	ALA	B	788	51.881	19.205	83.771	1.00	54.39
3352	O	ALA	B	788	52.825	18.429	83.538	1.00	53.44

FIGURE 3BO

A	B	C	D	E	F	G	H	I	J
3353	N	ILE	B	789	51.076	19.709	82.848	1.00	58.49
3354	CA	ILE	B	789	51.180	19.309	81.466	1.00	60.06
3355	CB	ILE	B	789	49.791	19.422	80.879	1.00	60.19
3356	CG1	ILE	B	789	49.005	18.288	81.542	1.00	57.40
3357	CD1	ILE	B	789	47.545	18.338	81.498	1.00	52.54
3358	CG2	ILE	B	789	49.888	19.223	79.405	1.00	60.76
3359	C	ILE	B	789	52.175	20.260	80.860	1.00	61.11
3360	O	ILE	B	789	53.217	19.903	80.277	1.00	61.28
3361	N	SER	B	790	51.775	21.498	81.090	1.00	63.37
3362	CA	SER	B	790	52.455	22.746	80.870	1.00	65.13
3363	CB	SER	B	790	51.887	23.687	81.908	1.00	64.75
3364	OG	SER	B	790	52.132	22.945	83.109	1.00	72.95
3365	C	SER	B	790	53.883	22.498	81.324	1.00	65.49
3366	O	SER	B	790	54.721	22.181	80.519	1.00	65.88
3367	N	TYR	B	791	54.080	22.534	82.650	1.00	67.60
3368	CA	TYR	B	791	55.356	22.655	83.371	1.00	67.61
3369	CB	TYR	B	791	55.133	23.658	84.492	1.00	67.72
3370	CG	TYR	B	791	54.527	24.979	84.072	1.00	69.06
3371	CD1	TYR	B	791	53.373	25.468	84.681	1.00	73.54
3372	CE1	TYR	B	791	52.811	26.729	84.343	1.00	77.27
3373	CZ	TYR	B	791	53.434	27.536	83.361	1.00	78.11
3374	OH	TYR	B	791	52.888	28.779	83.031	1.00	74.15
3375	CE2	TYR	B	791	54.617	27.080	82.777	1.00	76.67
3376	CD2	TYR	B	791	55.167	25.794	83.142	1.00	74.63
3377	C	TYR	B	791	55.841	21.341	83.987	1.00	67.44
3378	O	TYR	B	791	56.991	21.177	84.471	1.00	66.78
3379	N	ARG	B	792	54.955	20.377	83.993	1.00	66.21
3380	CA	ARG	B	792	55.418	19.098	84.530	1.00	65.39
3381	CB	ARG	B	792	56.655	18.642	83.811	1.00	65.99
3382	CG	ARG	B	792	56.702	17.131	83.750	1.00	72.90
3383	CD	ARG	B	792	57.978	16.532	83.158	1.00	81.61
3384	NE	ARG	B	792	58.984	17.572	83.010	1.00	88.48
3385	CZ	ARG	B	792	60.191	17.394	82.478	1.00	91.91
3386	NH1	ARG	B	792	60.980	18.468	82.408	1.00	92.54
3387	NH2	ARG	B	792	60.592	16.196	82.009	1.00	89.53
3388	C	ARG	B	792	55.624	19.127	86.033	1.00	61.73
3389	O	ARG	B	792	56.452	18.430	86.557	1.00	61.41
3390	N	ALA	B	793	54.792	19.903	86.722	1.00	58.85
3391	CA	ALA	B	793	54.853	20.039	88.179	1.00	56.36
3392	CB	ALA	B	793	54.957	21.543	88.590	1.00	55.91
3393	C	ALA	B	793	53.713	19.275	88.952	1.00	55.37
3394	O	ALA	B	793	52.576	19.774	89.157	1.00	53.05
3395	N	PHE	B	794	54.087	18.085	89.403	1.00	53.01
3396	CA	PHE	B	794	53.197	17.141	90.066	1.00	52.23
3397	CB	PHE	B	794	53.621	15.682	89.718	1.00	51.93
3398	CG	PHE	B	794	53.400	15.338	88.275	1.00	52.20
3399	CD1	PHE	B	794	52.102	15.265	87.761	1.00	55.84
3400	CE1	PHE	B	794	51.857	14.993	86.368	1.00	57.33
3401	CZ	PHE	B	794	52.972	14.849	85.527	1.00	57.10
3402	CE2	PHE	B	794	54.271	14.956	86.076	1.00	51.98
3403	CD2	PHE	B	794	54.461	15.189	87.425	1.00	50.42
3404	C	PHE	B	794	53.311	17.374	91.542	1.00	50.46

FIGURE 3BP

A	B	C	D	E	F	G	H	I	J
3405	O	PHE	B	794	54.347	17.425	92.050	1.00	51.33
3406	N	THR	B	795	52.221	17.321	92.249	1.00	49.78
3407	CA	THR	B	795	52.232	17.820	93.561	1.00	47.81
3408	CB	THR	B	795	52.007	19.294	93.227	1.00	48.89
3409	OG1	THR	B	795	53.044	20.092	93.792	1.00	53.29
3410	CG2	THR	B	795	50.667	19.849	93.729	1.00	46.81
3411	C	THR	B	795	50.983	17.224	94.222	1.00	46.44
3412	O	THR	B	795	50.005	16.921	93.564	1.00	45.65
3413	N	SER	B	796	50.946	17.050	95.504	1.00	42.66
3414	CA	SER	B	796	49.646	16.708	95.943	1.00	42.64
3415	CB	SER	B	796	49.536	16.690	97.500	1.00	42.15
3416	OG	SER	B	796	50.321	15.565	97.792	1.00	41.91
3417	C	SER	B	796	48.526	17.544	95.328	1.00	41.72
3418	O	SER	B	796	47.377	17.048	95.157	1.00	41.30
3419	N	ALA	B	797	48.784	18.819	95.079	1.00	40.89
3420	CA	ALA	B	797	47.663	19.681	94.615	1.00	40.50
3421	CB	ALA	B	797	48.022	21.114	94.671	1.00	39.74
3422	C	ALA	B	797	47.280	19.305	93.173	1.00	39.17
3423	O	ALA	B	797	46.128	19.595	92.751	1.00	38.84
3424	N	SER	B	798	48.263	18.720	92.489	1.00	34.53
3425	CA	SER	B	798	48.225	18.096	91.130	1.00	37.20
3426	CB	SER	B	798	49.628	17.544	91.024	1.00	36.03
3427	OG	SER	B	798	50.147	17.397	89.784	1.00	39.62
3428	C	SER	B	798	47.230	16.905	91.257	1.00	37.26
3429	O	SER	B	798	46.155	16.860	90.659	1.00	39.61
3430	N	ASP	B	799	47.482	16.037	92.210	1.00	38.19
3431	CA	ASP	B	799	46.573	14.920	92.473	1.00	37.01
3432	CB	ASP	B	799	47.107	14.077	93.579	1.00	35.52
3433	CG	ASP	B	799	48.139	13.180	93.147	1.00	34.06
3434	OD1	ASP	B	799	48.373	13.014	91.930	1.00	35.46
3435	OD2	ASP	B	799	48.888	12.613	93.969	1.00	38.80
3436	C	ASP	B	799	45.199	15.458	92.855	1.00	35.89
3437	O	ASP	B	799	44.175	14.779	92.609	1.00	37.05
3438	N	VAL	B	800	45.142	16.620	93.477	1.00	35.26
3439	CA	VAL	B	800	43.822	17.145	93.947	1.00	32.94
3440	CB	VAL	B	800	43.940	18.266	95.019	1.00	34.11
3441	CG1	VAL	B	800	42.646	19.149	95.117	1.00	22.48
3442	CG2	VAL	B	800	44.469	17.699	96.515	1.00	28.48
3443	C	VAL	B	800	42.950	17.561	92.768	1.00	34.34
3444	O	VAL	B	800	41.709	17.445	92.760	1.00	35.47
3445	N	TRP	B	801	43.636	18.049	91.764	1.00	34.34
3446	CA	TRP	B	801	43.044	18.275	90.477	1.00	35.48
3447	CB	TRP	B	801	44.091	18.901	89.507	1.00	35.00
3448	CG	TRP	B	801	43.459	19.177	88.157	1.00	40.40
3449	CD1	TRP	B	801	43.141	18.226	87.174	1.00	38.90
3450	NE1	TRP	B	801	42.553	18.884	86.133	1.00	39.62
3451	CE2	TRP	B	801	42.424	20.212	86.419	1.00	34.39
3452	CD2	TRP	B	801	43.007	20.444	87.642	1.00	34.20
3453	CE3	TRP	B	801	43.005	21.746	88.138	1.00	38.91
3454	CZ3	TRP	B	801	42.445	22.736	87.399	1.00	36.57
3455	CH2	TRP	B	801	41.952	22.492	86.152	1.00	36.98
3456	CZ2	TRP	B	801	41.885	21.221	85.652	1.00	38.72

FIGURE 3BQ

A	B	C	D	E	F	G	H	I	J
3457	C	TRP	B	801	42.351	16.959	89.962	1.00	33.13
3458	O	TRP	B	801	41.094	16.871	89.763	1.00	32.82
3459	N	SER	B	802	43.167	15.932	89.804	1.00	33.07
3460	CA	SER	B	802	42.670	14.644	89.377	1.00	30.99
3461	CB	SER	B	802	43.764	13.696	89.596	1.00	32.92
3462	OG	SER	B	802	44.915	13.966	88.873	1.00	25.93
3463	C	SER	B	802	41.511	14.199	90.191	1.00	32.70
3464	O	SER	B	802	40.470	13.693	89.697	1.00	33.27
3465	N	PHE	B	803	41.612	14.494	91.467	1.00	30.29
3466	CA	PHE	B	803	40.592	14.026	92.333	1.00	29.47
3467	CB	PHE	B	803	40.976	14.324	93.828	1.00	27.73
3468	CG	PHE	B	803	39.873	14.000	94.769	1.00	29.18
3469	CD1	PHE	B	803	39.025	15.007	95.261	1.00	23.67
3470	CE1	PHE	B	803	38.016	14.683	96.177	1.00	32.92
3471	CZ	PHE	B	803	37.764	13.282	96.514	1.00	31.89
3472	CE2	PHE	B	803	38.619	12.258	95.929	1.00	28.18
3473	CD2	PHE	B	803	39.656	12.633	95.129	1.00	30.46
3474	C	PHE	B	803	39.283	14.713	92.014	1.00	29.62
3475	O	PHE	B	803	38.185	14.221	92.288	1.00	29.50
3476	N	GLY	B	804	39.385	15.925	91.508	1.00	31.66
3477	CA	GLY	B	804	38.192	16.682	91.178	1.00	32.09
3478	C	GLY	B	804	37.595	15.997	89.930	1.00	31.91
3479	O	GLY	B	804	36.344	15.792	89.811	1.00	32.78
3480	N	ILE	B	805	38.471	15.468	89.086	1.00	31.21
3481	CA	ILE	B	805	37.922	14.809	87.937	1.00	30.79
3482	CB	ILE	B	805	39.019	14.336	86.958	1.00	31.83
3483	CG1	ILE	B	805	39.901	15.503	86.501	1.00	29.56
3484	CD1	ILE	B	805	39.060	16.699	85.638	1.00	28.04
3485	CG2	ILE	B	805	38.273	13.590	85.789	1.00	30.62
3486	C	ILE	B	805	37.187	13.531	88.399	1.00	30.39
3487	O	ILE	B	805	36.137	13.167	87.862	1.00	30.88
3488	N	VAL	B	806	37.856	12.771	89.253	1.00	30.81
3489	CA	VAL	B	806	37.335	11.519	89.853	1.00	28.37
3490	CB	VAL	B	806	38.295	10.897	90.978	1.00	29.63
3491	CG1	VAL	B	806	37.674	9.730	91.601	1.00	21.00
3492	CG2	VAL	B	806	39.518	10.536	90.425	1.00	22.65
3493	C	VAL	B	806	36.055	11.924	90.505	1.00	29.32
3494	O	VAL	B	806	35.066	11.258	90.312	1.00	32.00
3495	N	MET	B	807	36.006	12.981	91.282	1.00	28.61
3496	CA	MET	B	807	34.635	13.320	91.782	1.00	30.01
3497	CB	MET	B	807	34.544	14.686	92.556	1.00	27.73
3498	CG	MET	B	807	35.490	14.830	93.746	1.00	29.47
3499	SD	MET	B	807	35.350	16.540	94.517	1.00	35.02
3500	CE	MET	B	807	33.929	16.536	95.089	1.00	33.26
3501	C	MET	B	807	33.615	13.403	90.606	1.00	30.22
3502	O	MET	B	807	32.442	13.037	90.717	1.00	30.29
3503	N	TRP	B	808	34.040	13.980	89.473	1.00	31.44
3504	CA	TRP	B	808	33.026	14.215	88.453	1.00	28.58
3505	CB	TRP	B	808	33.626	15.123	87.374	1.00	30.92
3506	CG	TRP	B	808	32.681	15.593	86.292	1.00	26.01
3507	CD1	TRP	B	808	31.826	16.670	86.368	1.00	25.96
3508	NE1	TRP	B	808	31.178	16.794	85.186	1.00	34.62

FIGURE 3BR

A	B	C	D	E	F	G	H	I	J
3509	CE2	TRP	B	808	31.566	15.779	84.355	1.00	32.11
3510	CD2	TRP	B	808	32.468	14.980	85.061	1.00	28.97
3511	CE3	TRP	B	808	33.064	13.909	84.398	1.00	28.52
3512	CZ3	TRP	B	808	32.709	13.687	83.032	1.00	32.24
3513	CH2	TRP	B	808	31.725	14.446	82.425	1.00	35.24
3514	CZ2	TRP	B	808	31.185	15.521	83.050	1.00	31.09
3515	C	TRP	B	808	32.712	12.873	87.869	1.00	28.00
3516	O	TRP	B	808	31.577	12.568	87.668	1.00	31.29
3517	N	GLU	B	809	33.684	12.013	87.650	1.00	27.30
3518	CA	GLU	B	809	33.330	10.714	87.110	1.00	28.51
3519	CB	GLU	B	809	34.555	9.884	86.910	1.00	30.85
3520	CG	GLU	B	809	35.617	10.432	86.024	1.00	25.12
3521	CD	GLU	B	809	36.813	9.571	86.014	1.00	28.19
3522	OE1	GLU	B	809	36.849	8.704	85.133	1.00	32.40
3523	OE2	GLU	B	809	37.778	9.798	86.791	1.00	31.60
3524	C	GLU	B	809	32.435	9.919	88.019	1.00	30.07
3525	O	GLU	B	809	31.575	9.111	87.555	1.00	33.66
3526	N	VAL	B	810	32.507	10.201	89.289	1.00	30.06
3527	CA	VAL	B	810	31.716	9.434	90.205	1.00	29.76
3528	CB	VAL	B	810	32.255	9.428	91.665	1.00	30.24
3529	CG1	VAL	B	810	31.095	9.097	92.609	1.00	24.88
3530	CG2	VAL	B	810	33.391	8.481	91.834	1.00	25.13
3531	C	VAL	B	810	30.346	10.058	90.287	1.00	30.62
3532	O	VAL	B	810	29.381	9.349	90.313	1.00	27.09
3533	N	MET	B	811	30.247	11.393	90.308	1.00	32.39
3534	CA	MET	B	811	28.889	11.928	90.411	1.00	34.71
3535	CB	MET	B	811	28.900	13.402	90.899	1.00	35.87
3536	CG	MET	B	811	29.590	13.624	92.224	1.00	38.06
3537	SD	MET	B	811	28.965	12.583	93.435	1.00	43.12
3538	CE	MET	B	811	27.111	12.868	93.575	1.00	35.71
3539	C	MET	B	811	28.162	11.746	89.043	1.00	33.74
3540	O	MET	B	811	27.022	11.928	88.905	1.00	36.24
3541	N	THR	B	812	28.845	11.231	88.066	1.00	35.66
3542	CA	THR	B	812	28.304	11.132	86.752	1.00	35.64
3543	CB	THR	B	812	29.319	11.867	85.953	1.00	37.45
3544	OG1	THR	B	812	28.697	12.834	85.169	1.00	38.86
3545	CG2	THR	B	812	30.251	11.113	85.174	1.00	23.27
3546	C	THR	B	812	28.173	9.753	86.352	1.00	37.54
3547	O	THR	B	812	27.786	9.432	85.230	1.00	38.76
3548	N	TYR	B	813	28.448	8.869	87.286	1.00	37.57
3549	CA	TYR	B	813	28.363	7.432	86.943	1.00	34.78
3550	CB	TYR	B	813	26.962	6.945	86.721	1.00	34.82
3551	CG	TYR	B	813	26.132	6.832	88.076	1.00	34.63
3552	CD1	TYR	B	813	25.269	7.812	88.444	1.00	29.08
3553	CE1	TYR	B	813	24.637	7.762	89.559	1.00	29.89
3554	CZ	TYR	B	813	24.749	6.694	90.445	1.00	35.16
3555	OH	TYR	B	813	23.994	6.732	91.691	1.00	33.13
3556	CE2	TYR	B	813	25.605	5.638	90.112	1.00	31.34
3557	CD2	TYR	B	813	26.330	5.766	88.953	1.00	30.20
3558	C	TYR	B	813	29.301	6.978	85.923	1.00	34.15
3559	O	TYR	B	813	28.981	6.116	85.162	1.00	35.41
3560	N	GLY	B	814	30.513	7.539	85.891	1.00	33.63

FIGURE 3BS

A	B	C	D	E	F	G	H	I	J
3561	CA	GLY	B	814	31.485	6.912	85.013	1.00	33.04
3562	C	GLY	B	814	31.465	7.503	83.656	1.00	33.66
3563	O	GLY	B	814	31.929	6.919	82.671	1.00	29.15
3564	N	GLU	B	815	30.913	8.688	83.576	1.00	34.73
3565	CA	GLU	B	815	31.053	9.319	82.301	1.00	37.09
3566	CB	GLU	B	815	30.177	10.491	82.237	1.00	38.02
3567	CG	GLU	B	815	30.303	11.378	80.999	1.00	40.70
3568	CD	GLU	B	815	29.679	10.720	79.825	1.00	39.58
3569	OE1	GLU	B	815	30.404	10.091	79.087	1.00	37.45
3570	OE2	GLU	B	815	28.456	10.675	79.743	1.00	43.36
3571	C	GLU	B	815	32.498	9.735	82.095	1.00	38.19
3572	O	GLU	B	815	33.212	10.124	83.020	1.00	38.65
3573	N	ARG	B	816	32.930	9.543	80.863	1.00	37.01
3574	CA	ARG	B	816	34.213	9.930	80.391	1.00	38.78
3575	CB	ARG	B	816	34.352	9.446	78.966	1.00	38.98
3576	CG	ARG	B	816	35.424	10.059	78.162	1.00	42.28
3577	CD	ARG	B	816	36.087	9.017	77.341	1.00	52.01
3578	NE	ARG	B	816	37.532	9.132	77.360	1.00	54.71
3579	CZ	ARG	B	816	38.138	9.580	76.306	1.00	59.21
3580	NH1	ARG	B	816	37.353	9.900	75.305	1.00	68.31
3581	NH2	ARG	B	816	39.446	9.779	76.226	1.00	56.49
3582	C	ARG	B	816	34.381	11.410	80.467	1.00	38.72
3583	O	ARG	B	816	33.687	12.139	79.791	1.00	39.78
3584	N	PRO	B	817	35.330	11.824	81.298	1.00	37.40
3585	CA	PRO	B	817	35.684	13.217	81.461	1.00	37.95
3586	CB	PRO	B	817	36.997	13.136	82.256	1.00	37.05
3587	CG	PRO	B	817	36.763	11.888	83.183	1.00	38.15
3588	CD	PRO	B	817	36.171	10.927	82.136	1.00	38.41
3589	C	PRO	B	817	35.788	13.947	80.089	1.00	38.69
3590	O	PRO	B	817	36.495	13.433	79.252	1.00	36.60
3591	N	TYR	B	818	35.057	15.066	79.844	1.00	38.82
3592	CA	TYR	B	818	35.210	15.759	78.539	1.00	39.23
3593	CB	TYR	B	818	36.663	16.068	78.236	1.00	38.09
3594	CG	TYR	B	818	37.266	16.821	79.315	1.00	39.70
3595	CD1	TYR	B	818	36.909	18.157	79.532	1.00	34.79
3596	CE1	TYR	B	818	37.443	18.905	80.645	1.00	34.86
3597	CZ	TYR	B	818	38.325	18.209	81.532	1.00	37.76
3598	OH	TYR	B	818	38.860	18.893	82.603	1.00	39.95
3599	CE2	TYR	B	818	38.653	16.824	81.335	1.00	33.51
3600	CD2	TYR	B	818	38.098	16.158	80.229	1.00	36.26
3601	C	TYR	B	818	34.667	14.938	77.424	1.00	38.80
3602	O	TYR	B	818	34.928	15.202	76.270	1.00	39.89
3603	N	TRP	B	819	33.846	13.989	77.763	1.00	38.70
3604	CA	TRP	B	819	33.188	13.270	76.700	1.00	39.85
3605	CB	TRP	B	819	32.069	14.135	76.151	1.00	38.03
3606	CG	TRP	B	819	31.456	14.694	77.287	1.00	36.05
3607	CD1	TRP	B	819	30.606	14.112	78.042	1.00	30.08
3608	NE1	TRP	B	819	30.225	14.945	79.039	1.00	25.80
3609	CE2	TRP	B	819	30.803	16.169	78.851	1.00	30.10
3610	CD2	TRP	B	819	31.604	16.053	77.781	1.00	36.77
3611	CE3	TRP	B	819	32.310	17.173	77.346	1.00	33.18
3612	CZ3	TRP	B	819	32.236	18.266	77.979	1.00	31.31

FIGURE 3BT

A	B	C	D	E	F	G	H	I	J
3613	CH2	TRP	B	819	31.410	18.424	79.081	1.00	35.76
3614	CZ2	TRP	B	819	30.670	17.374	79.552	1.00	36.26
3615	C	TRP	B	819	34.172	12.981	75.636	1.00	39.50
3616	O	TRP	B	819	35.257	12.601	75.950	1.00	42.24
3617	N	GLU	B	820	33.837	13.251	74.389	1.00	39.99
3618	CA	GLU	B	820	34.742	12.918	73.254	1.00	40.61
3619	CB	GLU	B	820	33.941	12.178	72.114	1.00	41.25
3620	CG	GLU	B	820	33.263	10.859	72.529	1.00	40.27
3621	CD	GLU	B	820	32.030	11.030	73.446	1.00	45.99
3622	OE1	GLU	B	820	31.875	10.407	74.529	1.00	48.82
3623	OE2	GLU	B	820	31.163	11.766	73.086	1.00	36.20
3624	C	GLU	B	820	35.708	14.020	72.749	1.00	40.02
3625	O	GLU	B	820	36.216	13.972	71.706	1.00	39.30
3626	N	LEU	B	821	35.944	15.037	73.516	1.00	42.32
3627	CA	LEU	B	821	36.969	16.002	73.125	1.00	45.66
3628	CB	LEU	B	821	37.212	16.973	74.283	1.00	45.63
3629	CG	LEU	B	821	36.273	18.189	74.253	1.00	50.25
3630	CD1	LEU	B	821	34.848	17.908	73.740	1.00	53.81
3631	CD2	LEU	B	821	36.254	18.988	75.530	1.00	46.51
3632	C	LEU	B	821	38.234	15.199	72.892	1.00	45.45
3633	O	LEU	B	821	38.302	14.137	73.411	1.00	45.58
3634	N	SER	B	822	39.183	15.665	72.097	1.00	45.03
3635	CA	SER	B	822	40.462	14.994	71.975	1.00	47.64
3636	CB	SER	B	822	41.264	15.426	70.738	1.00	47.83
3637	OG	SER	B	822	41.442	16.836	70.727	1.00	44.19
3638	C	SER	B	822	41.291	15.448	73.115	1.00	48.61
3639	O	SER	B	822	40.974	16.431	73.769	1.00	48.62
3640	N	ASN	B	823	42.405	14.776	73.341	1.00	50.08
3641	CA	ASN	B	823	43.325	15.385	74.319	1.00	53.14
3642	CB	ASN	B	823	44.484	14.436	74.614	1.00	53.45
3643	CG	ASN	B	823	43.996	13.177	75.311	1.00	57.25
3644	OD1	ASN	B	823	42.979	13.236	76.090	1.00	56.44
3645	ND2	ASN	B	823	44.642	12.035	75.027	1.00	50.82
3646	C	ASN	B	823	43.669	16.895	74.071	1.00	52.98
3647	O	ASN	B	823	43.354	17.756	74.937	1.00	53.13
3648	N	HIS	B	824	44.132	17.237	72.858	1.00	54.65
3649	CA	HIS	B	824	44.478	18.636	72.459	1.00	54.79
3650	CB	HIS	B	824	45.032	18.740	70.973	1.00	58.59
3651	CG	HIS	B	824	44.129	19.419	69.940	1.00	67.70
3652	ND1	HIS	B	824	43.609	20.705	70.072	1.00	73.79
3653	CE1	HIS	B	824	42.888	21.017	69.000	1.00	75.94
3654	CE1	HIS	B	824	42.761	20.940	69.073	1.00	75.87
3655	NE2	HIS	B	824	42.935	19.999	68.157	1.00	76.47
3656	CD2	HIS	B	824	43.718	18.994	68.703	1.00	75.66
3657	C	HIS	B	824	43.306	19.509	72.778	1.00	52.56
3658	O	HIS	B	824	43.424	20.588	73.463	1.00	49.91
3659	N	GLU	B	825	42.128	19.027	72.387	1.00	50.66
3660	CA	GLU	B	825	40.942	19.831	72.718	1.00	50.31
3661	CB	GLU	B	825	39.699	19.255	72.086	1.00	52.70
3662	CG	GLU	B	825	39.956	18.712	70.695	1.00	55.19
3663	CD	GLU	B	825	38.704	18.188	70.065	1.00	60.55
3664	OE1	GLU	B	825	38.480	16.987	70.221	1.00	63.97

FIGURE 3BU

A	B	C	D	E	F	G	H	I	J
3665	OE2	GLU	B	825	37.946	18.964	69.435	1.00	63.96
3666	C	GLU	B	825	40.747	20.079	74.206	1.00	49.70
3667	O	GLU	B	825	40.538	21.250	74.669	1.00	48.88
3668	N	VAL	B	826	40.903	19.012	74.976	1.00	47.68
3669	CA	VAL	B	826	40.825	19.160	76.439	1.00	46.21
3670	CB	VAL	B	826	41.173	17.756	77.124	1.00	47.64
3671	CG1	VAL	B	826	41.421	17.900	78.686	1.00	46.13
3672	CG2	VAL	B	826	40.130	16.592	76.663	1.00	38.86
3673	C	VAL	B	826	41.762	20.239	76.958	1.00	46.74
3674	O	VAL	B	826	41.363	21.236	77.651	1.00	46.61
3675	N	MET	B	827	43.023	20.076	76.582	1.00	47.29
3676	CA	MET	B	827	44.025	21.031	77.016	1.00	48.46
3677	CB	MET	B	827	45.429	20.635	76.593	1.00	49.16
3678	CG	MET	B	827	46.036	19.261	77.139	1.00	48.31
3679	SD	MET	B	827	47.464	18.772	76.174	1.00	56.19
3680	CE	MET	B	827	48.223	20.801	76.241	1.00	53.80
3681	C	MET	B	827	43.641	22.449	76.548	1.00	50.31
3682	O	MET	B	827	43.675	23.355	77.381	1.00	51.02
3683	N	ALA	B	828	43.175	22.647	75.280	1.00	50.45
3684	CA	ALA	B	828	42.812	23.992	74.874	1.00	48.64
3685	CB	ALA	B	828	42.467	24.087	73.404	1.00	49.40
3686	C	ALA	B	828	41.656	24.425	75.727	1.00	47.69
3687	O	ALA	B	828	41.688	25.516	76.302	1.00	45.93
3688	N	ALA	B	829	40.622	23.600	75.859	1.00	48.34
3689	CA	ALA	B	829	39.500	24.095	76.706	1.00	49.28
3690	CB	ALA	B	829	38.454	23.025	76.877	1.00	48.53
3691	C	ALA	B	829	39.974	24.564	78.107	1.00	50.69
3692	O	ALA	B	829	39.428	25.519	78.706	1.00	52.39
3693	N	ILE	B	830	40.902	23.804	78.674	1.00	51.92
3694	CA	ILE	B	830	41.427	24.108	79.998	1.00	54.05
3695	CB	ILE	B	830	42.400	22.914	80.456	1.00	54.22
3696	CG1	ILE	B	830	41.635	21.788	81.139	1.00	55.56
3697	CD1	ILE	B	830	40.775	22.243	82.301	1.00	56.62
3698	CG2	ILE	B	830	43.521	23.378	81.390	1.00	52.02
3699	C	ILE	B	830	42.152	25.485	79.957	1.00	54.79
3700	O	ILE	B	830	41.872	26.417	80.751	1.00	54.16
3701	N	ASN	B	831	43.068	25.588	79.006	1.00	55.43
3702	CA	ASN	B	831	43.834	26.818	78.871	1.00	57.64
3703	CB	ASN	B	831	44.900	26.698	77.762	1.00	57.97
3704	CG	ASN	B	831	46.082	25.749	78.170	1.00	61.45
3705	OD1	ASN	B	831	46.313	25.407	79.388	1.00	63.42
3706	ND2	ASN	B	831	46.803	25.283	77.160	1.00	61.97
3707	C	ASN	B	831	42.869	28.013	78.776	1.00	56.48
3708	O	ASN	B	831	43.088	29.055	79.374	1.00	57.73
3709	N	ASP	B	832	41.729	27.833	78.136	1.00	55.50
3710	CA	ASP	B	832	40.747	28.879	78.162	1.00	54.22
3711	CB	ASP	B	832	39.824	28.726	76.982	1.00	56.03
3712	CG	ASP	B	832	40.475	29.240	75.659	1.00	62.62
3713	OD1	ASP	B	832	40.519	30.491	75.432	1.00	65.21
3714	OD2	ASP	B	832	41.001	28.469	74.822	1.00	63.16
3715	C	ASP	B	832	39.956	28.914	79.478	1.00	53.83
3716	O	ASP	B	832	39.026	29.722	79.634	1.00	49.78

FIGURE 3BV

A	B	C	D	E	F	G	H	I	J
3717	N	GLY	B	833	40.258	28.009	80.431	1.00	52.62
3718	CA	GLY	B	833	39.487	28.103	81.674	1.00	52.59
3719	C	GLY	B	833	38.078	27.498	81.698	1.00	51.69
3720	O	GLY	B	833	37.252	27.863	82.546	1.00	53.45
3721	N	PHE	B	834	37.795	26.621	80.730	1.00	50.06
3722	CA	PHE	B	834	36.587	25.786	80.701	1.00	49.17
3723	CB	PHE	B	834	36.577	24.912	79.451	1.00	46.71
3724	CG	PHE	B	834	35.397	23.934	79.392	1.00	49.59
3725	CD1	PHE	B	834	35.538	22.592	79.676	1.00	48.43
3726	CE1	PHE	B	834	34.451	21.720	79.632	1.00	49.88
3727	CZ	PHE	B	834	33.226	22.210	79.315	1.00	47.84
3728	CE2	PHE	B	834	33.106	23.517	78.977	1.00	49.60
3729	CD2	PHE	B	834	34.149	24.351	78.999	1.00	49.93
3730	C	PHE	B	834	36.831	24.753	81.816	1.00	47.10
3731	O	PHE	B	834	37.960	24.368	82.076	1.00	46.20
3732	N	ARG	B	835	35.745	24.346	82.462	1.00	43.32
3733	CA	ARG	B	835	35.681	23.378	83.528	1.00	41.36
3734	CB	ARG	B	835	35.414	23.993	84.921	1.00	40.95
3735	CG	ARG	B	835	36.467	24.942	85.518	1.00	39.62
3736	CD	ARG	B	835	37.837	24.358	85.418	1.00	38.69
3737	NE	ARG	B	835	38.881	25.042	86.088	1.00	44.32
3738	CZ	ARG	B	835	39.934	25.489	85.438	1.00	50.44
3739	NH1	ARG	B	835	40.938	26.049	86.127	1.00	43.02
3740	NH2	ARG	B	835	39.981	25.329	84.088	1.00	44.62
3741	C	ARG	B	835	34.440	22.546	83.165	1.00	40.49
3742	O	ARG	B	835	33.483	23.057	82.604	1.00	41.54
3743	N	LEU	B	836	34.469	21.271	83.482	1.00	37.93
3744	CA	LEU	B	836	33.425	20.396	83.233	1.00	36.15
3745	CB	LEU	B	836	33.838	18.994	83.815	1.00	37.66
3746	CG	LEU	B	836	35.116	18.323	83.267	1.00	35.29
3747	CD1	LEU	B	836	35.499	17.005	83.929	1.00	33.23
3748	CD2	LEU	B	836	34.789	18.074	81.815	1.00	38.91
3749	C	LEU	B	836	32.232	20.956	83.981	1.00	36.97
3750	O	LEU	B	836	32.432	21.572	85.028	1.00	36.64
3751	N	PRO	B	837	30.999	20.719	83.525	1.00	34.28
3752	CA	PRO	B	837	29.824	21.275	84.187	1.00	34.92
3753	CB	PRO	B	837	28.789	21.273	83.072	1.00	34.34
3754	CG	PRO	B	837	29.449	20.600	81.871	1.00	39.22
3755	CD	PRO	B	837	30.650	19.919	82.344	1.00	35.63
3756	C	PRO	B	837	29.206	20.394	85.301	1.00	36.66
3757	O	PRO	B	837	29.462	19.205	85.411	1.00	34.31
3758	N	THR	B	838	28.308	20.910	86.081	1.00	37.44
3759	CA	THR	B	838	27.996	20.063	87.170	1.00	41.30
3760	CB	THR	B	838	27.125	20.677	88.173	1.00	42.22
3761	OG1	THR	B	838	26.152	19.670	88.570	1.00	45.09
3762	CG2	THR	B	838	26.224	21.773	87.502	1.00	44.87
3763	C	THR	B	838	27.248	18.908	86.572	1.00	43.03
3764	O	THR	B	838	26.534	19.021	85.578	1.00	44.86
3765	N	PRO	B	839	27.366	17.803	87.218	1.00	41.53
3766	CA	PRO	B	839	26.726	16.604	86.740	1.00	43.52
3767	CB	PRO	B	839	27.395	15.497	87.609	1.00	40.76
3768	CG	PRO	B	839	28.609	16.173	88.078	1.00	42.05

FIGURE 3BW

A	B	C	D	E	F	G	H	I	J
3769	CD	PRO	B	839	28.056	17.580	88.467	1.00	42.30
3770	C	PRO	B	839	25.278	16.789	87.071	1.00	44.34
3771	O	PRO	B	839	24.955	17.610	87.915	1.00	46.72
3772	N	ALA	B	840	24.416	16.004	86.466	1.00	46.17
3773	CA	ALA	B	840	22.989	16.149	86.701	1.00	46.30
3774	CB	ALA	B	840	22.229	15.193	85.735	1.00	46.61
3775	C	ALA	B	840	22.791	15.690	88.100	1.00	47.32
3776	O	ALA	B	840	23.359	14.659	88.452	1.00	48.03
3777	N	ASP	B	841	21.963	16.400	88.859	1.00	47.66
3778	CA	ASP	B	841	21.685	16.142	90.292	1.00	48.16
3779	CB	ASP	B	841	20.927	14.837	90.420	1.00	50.16
3780	CG	ASP	B	841	19.492	14.998	89.877	1.00	56.15
3781	OD1	ASP	B	841	18.696	13.990	89.914	1.00	57.77
3782	OD2	ASP	B	841	19.120	16.143	89.372	1.00	56.22
3783	C	ASP	B	841	22.863	16.166	91.204	1.00	47.22
3784	O	ASP	B	841	22.887	15.601	92.244	1.00	48.47
3785	N	CYS	B	842	23.875	16.886	90.866	1.00	45.42
3786	CA	CYS	B	842	24.882	16.890	91.830	1.00	42.29
3787	CB	CYS	B	842	26.202	17.117	91.137	1.00	42.38
3788	SG	CYS	B	842	27.632	17.081	92.149	1.00	39.32
3789	C	CYS	B	842	24.617	17.957	92.802	1.00	43.32
3790	O	CYS	B	842	24.280	19.092	92.452	1.00	45.03
3791	N	PRO	B	843	24.714	17.602	94.064	1.00	43.72
3792	CA	PRO	B	843	24.628	18.589	95.111	1.00	42.14
3793	CB	PRO	B	843	24.991	17.794	96.325	1.00	44.83
3794	CG	PRO	B	843	24.594	16.246	95.888	1.00	42.62
3795	CD	PRO	B	843	24.689	16.198	94.536	1.00	40.73
3796	C	PRO	B	843	25.658	19.593	94.858	1.00	42.60
3797	O	PRO	B	843	26.804	19.223	94.460	1.00	43.32
3798	N	SER	B	844	25.288	20.847	95.134	1.00	40.74
3799	CA	SER	B	844	26.138	22.019	94.922	1.00	41.10
3800	CB	SER	B	844	25.378	23.281	95.359	1.00	45.78
3801	OG	SER	B	844	24.007	22.921	95.667	1.00	47.77
3802	C	SER	B	844	27.363	22.044	95.753	1.00	39.64
3803	O	SER	B	844	28.384	22.625	95.348	1.00	40.26
3804	N	ALA	B	845	27.313	21.508	96.965	1.00	37.83
3805	CA	ALA	B	845	28.582	21.420	97.650	1.00	36.40
3806	CB	ALA	B	845	28.347	21.151	99.043	1.00	39.16
3807	C	ALA	B	845	29.485	20.414	97.041	1.00	36.50
3808	O	ALA	B	845	30.717	20.568	96.981	1.00	40.92
3809	N	ILE	B	846	28.983	19.393	96.448	1.00	37.49
3810	CA	ILE	B	846	29.931	18.505	95.824	1.00	38.19
3811	CB	ILE	B	846	29.123	17.228	95.389	1.00	38.40
3812	CG1	ILE	B	846	28.802	16.375	96.633	1.00	41.00
3813	CD1	ILE	B	846	30.056	16.440	97.794	1.00	34.53
3814	CG2	ILE	B	846	29.935	16.381	94.424	1.00	38.32
3815	C	ILE	B	846	30.488	19.261	94.613	1.00	39.49
3816	O	ILE	B	846	31.719	19.363	94.292	1.00	37.89
3817	N	TYR	B	847	29.540	19.759	93.833	1.00	42.21
3818	CA	TYR	B	847	30.006	20.529	92.653	1.00	42.74
3819	CB	TYR	B	847	28.846	21.081	91.802	1.00	43.60
3820	CG	TYR	B	847	29.434	21.686	90.506	1.00	46.75

FIGURE 3BX

A	B	C	D	E	F	G	H	I	J
3821	CD1	TYR	B	847	29.238	23.035	90.142	1.00	40.15
3822	CE1	TYR	B	847	29.804	23.528	88.926	1.00	48.32
3823	CZ	TYR	B	847	30.561	22.684	88.120	1.00	44.77
3824	OH	TYR	B	847	31.151	23.079	86.988	1.00	40.40
3825	CE2	TYR	B	847	30.776	21.358	88.509	1.00	44.70
3826	CD2	TYR	B	847	30.234	20.893	89.685	1.00	47.08
3827	C	TYR	B	847	30.858	21.662	93.143	1.00	40.26
3828	O	TYR	B	847	31.963	21.877	92.659	1.00	40.34
3829	N	GLN	B	848	30.451	22.340	94.207	1.00	41.30
3830	CA	GLN	B	848	31.418	23.410	94.664	1.00	43.37
3831	CB	GLN	B	848	30.823	24.320	95.701	1.00	45.07
3832	CG	GLN	B	848	31.676	25.537	96.106	1.00	51.95
3833	CD	GLN	B	848	31.283	26.899	95.372	1.00	63.54
3834	OE1	GLN	B	848	30.417	26.923	94.412	1.00	64.88
3835	NE2	GLN	B	848	31.976	28.042	95.806	1.00	60.42
3836	C	GLN	B	848	32.850	22.934	94.967	1.00	41.04
3837	O	GLN	B	848	33.897	23.527	94.527	1.00	41.33
3838	N	LEU	B	849	32.915	21.786	95.608	1.00	38.01
3839	CA	LEU	B	849	34.208	21.204	95.905	1.00	35.47
3840	CB	LEU	B	849	33.889	20.040	96.868	1.00	36.49
3841	CG	LEU	B	849	35.120	19.349	97.222	1.00	36.62
3842	CD1	LEU	B	849	36.078	20.393	97.866	1.00	32.52
3843	CD2	LEU	B	849	34.708	18.241	98.241	1.00	43.70
3844	C	LEU	B	849	34.946	20.716	94.708	1.00	35.06
3845	O	LEU	B	849	36.200	20.891	94.564	1.00	34.28
3846	N	MET	B	850	34.223	20.003	93.821	1.00	35.02
3847	CA	MET	B	850	34.861	19.681	92.512	1.00	36.09
3848	CB	MET	B	850	33.703	19.134	91.632	1.00	37.35
3849	CG	MET	B	850	33.905	18.476	90.380	1.00	32.97
3850	SD	MET	B	850	32.372	17.871	89.923	1.00	36.02
3851	CE	MET	B	850	31.755	17.245	91.136	1.00	32.09
3852	C	MET	B	850	35.487	21.062	92.000	1.00	36.72
3853	O	MET	B	850	36.645	21.219	91.693	1.00	38.32
3854	N	MET	B	851	34.747	22.126	91.975	1.00	37.60
3855	CA	MET	B	851	35.408	23.296	91.429	1.00	38.96
3856	CB	MET	B	851	34.424	24.425	91.381	1.00	38.34
3857	CG	MET	B	851	33.322	24.168	90.395	1.00	38.17
3858	SD	MET	B	851	33.760	24.269	88.645	1.00	45.90
3859	CE	MET	B	851	34.669	25.672	88.676	1.00	46.07
3860	C	MET	B	851	36.688	23.732	92.181	1.00	41.53
3861	O	MET	B	851	37.765	24.106	91.542	1.00	43.20
3862	N	GLN	B	852	36.617	23.715	93.495	1.00	38.35
3863	CA	GLN	B	852	37.772	24.172	94.206	1.00	39.33
3864	CB	GLN	B	852	37.474	24.264	95.703	1.00	42.34
3865	CG	GLN	B	852	36.356	25.195	96.036	1.00	45.28
3866	CD	GLN	B	852	35.754	24.863	97.391	1.00	62.60
3867	OE1	GLN	B	852	34.797	25.545	97.871	1.00	68.59
3868	NE2	GLN	B	852	36.292	23.806	98.030	1.00	69.44
3869	C	GLN	B	852	38.834	23.236	93.879	1.00	40.26
3870	O	GLN	B	852	39.939	23.631	93.706	1.00	41.90
3871	N	CYS	B	853	38.590	21.960	93.648	1.00	40.71
3872	CA	CYS	B	853	39.835	21.254	93.263	1.00	39.23

FIGURE 3BY

A	B	C	D	E	F	G	H	I	J
3873	CB	CYS	B	853	39.782	19.711	93.273	1.00	39.20
3874	SG	CYS	B	853	38.918	18.954	94.690	1.00	40.47
3875	C	CYS	B	853	40.318	21.686	91.913	1.00	40.72
3876	O	CYS	B	853	41.421	21.347	91.564	1.00	38.66
3877	N	TRP	B	854	39.519	22.366	91.092	1.00	41.68
3878	CA	TRP	B	854	40.111	22.647	89.772	1.00	44.18
3879	CB	TRP	B	854	39.031	22.457	88.667	1.00	44.45
3880	CG	TRP	B	854	38.618	21.114	88.501	1.00	41.82
3881	CD1	TRP	B	854	39.368	19.980	88.704	1.00	41.87
3882	NE1	TRP	B	854	38.602	18.866	88.449	1.00	35.93
3883	CE2	TRP	B	854	37.352	19.263	88.140	1.00	32.47
3884	CD2	TRP	B	854	37.333	20.687	88.167	1.00	38.06
3885	CE3	TRP	B	854	36.138	21.359	87.897	1.00	32.76
3886	CZ3	TRP	B	854	35.127	20.665	87.536	1.00	29.91
3887	CH2	TRP	B	854	35.159	19.211	87.528	1.00	36.45
3888	CZ2	TRP	B	854	36.282	18.524	87.789	1.00	32.15
3889	C	TRP	B	854	40.722	24.083	89.583	1.00	45.26
3890	O	TRP	B	854	41.080	24.493	88.441	1.00	43.51
3891	N	GLN	B	855	40.727	24.844	90.675	1.00	45.68
3892	CA	GLN	B	855	41.226	26.182	90.651	1.00	46.55
3893	CB	GLN	B	855	41.379	26.724	92.049	1.00	48.28
3894	CG	GLN	B	855	40.053	26.999	92.625	1.00	50.56
3895	CD	GLN	B	855	40.145	28.208	93.423	1.00	60.72
3896	OE1	GLN	B	855	40.024	28.135	94.670	1.00	58.07
3897	NE2	GLN	B	855	40.408	29.384	92.729	1.00	61.21
3898	C	GLN	B	855	42.519	26.130	90.037	1.00	45.75
3899	O	GLN	B	855	43.278	25.307	90.342	1.00	42.80
3900	N	GLN	B	856	42.710	27.051	89.106	1.00	47.78
3901	CA	GLN	B	856	43.924	27.243	88.368	1.00	47.38
3902	CB	GLN	B	856	43.729	28.485	87.470	1.00	49.87
3903	CG	GLN	B	856	44.834	28.698	86.488	1.00	49.20
3904	CD	GLN	B	856	44.839	27.597	85.453	1.00	59.89
3905	OE1	GLN	B	856	43.788	26.947	85.185	1.00	61.37
3906	NE2	GLN	B	856	46.017	27.356	84.866	1.00	60.84
3907	C	GLN	B	856	45.065	27.456	89.331	1.00	46.71
3908	O	GLN	B	856	46.106	26.883	89.154	1.00	44.54
3909	N	GLU	B	857	44.892	28.308	90.331	1.00	48.11
3910	CA	GLU	B	857	45.984	28.408	91.341	1.00	51.65
3911	CB	GLU	B	857	45.768	29.578	92.387	1.00	52.14
3912	CG	GLU	B	857	46.166	30.915	91.710	1.00	62.33
3913	CD	GLU	B	857	45.832	32.252	92.398	1.00	71.26
3914	OE1	GLU	B	857	45.616	32.369	93.641	1.00	76.69
3915	OE2	GLU	B	857	45.828	33.239	91.631	1.00	75.04
3916	C	GLU	B	857	46.160	27.138	92.117	1.00	49.78
3917	O	GLU	B	857	45.368	26.874	93.003	1.00	50.77
3918	N	ARG	B	858	47.167	26.345	91.823	1.00	48.84
3919	CA	ARG	B	858	47.332	25.179	92.679	1.00	48.89
3920	CB	ARG	B	858	48.631	24.421	92.402	1.00	48.75
3921	CG	ARG	B	858	49.933	24.995	92.988	1.00	46.77
3922	CD	ARG	B	858	51.166	24.444	92.169	1.00	55.09
3923	NE	ARG	B	858	52.374	24.183	92.946	1.00	66.77
3924	CZ	ARG	B	858	53.580	24.706	92.706	1.00	70.86

FIGURE 3BZ

A	B	C	D	E	F	G	H	I	J
3925	NH1	ARG	B	858	53.804	25.519	91.672	1.00	68.19
3926	NH2	ARG	B	858	54.588	24.373	93.510	1.00	75.23
3927	C	ARG	B	858	47.192	25.455	94.211	1.00	49.58
3928	O	ARG	B	858	46.606	24.640	94.922	1.00	47.02
3929	N	ALA	B	859	47.743	26.584	94.704	1.00	49.56
3930	CA	ALA	B	859	47.766	26.775	96.131	1.00	49.75
3931	CB	ALA	B	859	48.584	27.954	96.533	1.00	51.56
3932	C	ALA	B	859	46.364	26.871	96.691	1.00	49.92
3933	O	ALA	B	859	46.123	26.666	97.946	1.00	47.88
3934	N	ALA	B	860	45.410	27.081	95.789	1.00	47.89
3935	CA	ALA	B	860	44.084	27.368	96.360	1.00	46.93
3936	CB	ALA	B	860	43.377	28.492	95.576	1.00	48.07
3937	C	ALA	B	860	43.240	26.131	96.356	1.00	45.49
3938	O	ALA	B	860	42.064	26.182	96.738	1.00	43.79
3939	N	ARG	B	861	43.808	25.041	95.824	1.00	45.18
3940	CA	ARG	B	861	43.069	23.742	95.850	1.00	45.03
3941	CB	ARG	B	861	43.616	22.678	94.889	1.00	45.11
3942	CG	ARG	B	861	43.572	23.172	93.351	1.00	46.90
3943	CD	ARG	B	861	44.345	22.261	92.433	1.00	44.77
3944	NE	ARG	B	861	44.743	22.970	91.264	1.00	38.07
3945	CZ	ARG	B	861	45.809	22.714	90.575	1.00	41.87
3946	NH1	ARG	B	861	46.592	21.700	90.905	1.00	38.56
3947	NH2	ARG	B	861	46.150	23.523	89.537	1.00	43.27
3948	C	ARG	B	861	43.130	23.309	97.271	1.00	45.07
3949	O	ARG	B	861	44.103	23.626	98.032	1.00	44.45
3950	N	PRO	B	862	42.026	22.694	97.660	1.00	43.87
3951	CA	PRO	B	862	41.895	22.193	98.984	1.00	43.84
3952	CB	PRO	B	862	40.554	21.463	98.980	1.00	44.25
3953	CG	PRO	B	862	39.896	21.841	97.717	1.00	41.03
3954	CD	PRO	B	862	40.829	22.473	96.845	1.00	44.03
3955	C	PRO	B	862	42.931	21.188	99.086	1.00	43.12
3956	O	PRO	B	862	43.244	20.570	98.142	1.00	42.37
3957	N	LYS	B	863	43.431	21.006	100.274	1.00	43.78
3958	CA	LYS	B	863	44.308	19.872	100.517	1.00	44.01
3959	CB	LYS	B	863	45.168	20.223	101.764	1.00	44.71
3960	CG	LYS	B	863	46.523	20.788	101.339	1.00	51.54
3961	CD	LYS	B	863	46.460	22.176	100.652	1.00	56.44
3962	CE	LYS	B	863	47.864	22.699	100.246	1.00	61.29
3963	NZ	LYS	B	863	49.033	21.667	100.373	1.00	67.02
3964	C	LYS	B	863	43.545	18.527	100.706	1.00	39.71
3965	O	LYS	B	863	42.327	18.497	101.170	1.00	38.33
3966	N	PHE	B	864	44.230	17.402	100.460	1.00	36.76
3967	CA	PHE	B	864	43.420	16.152	100.759	1.00	38.90
3968	CB	PHE	B	864	44.140	14.817	100.429	1.00	37.94
3969	CG	PHE	B	864	44.178	14.527	98.922	1.00	33.91
3970	CD1	PHE	B	864	45.375	14.533	98.233	1.00	29.69
3971	CE1	PHE	B	864	45.459	14.319	96.835	1.00	34.24
3972	CZ	PHE	B	864	44.247	14.052	96.097	1.00	34.64
3973	CE2	PHE	B	864	43.040	14.039	96.796	1.00	34.40
3974	CD2	PHE	B	864	43.011	14.281	98.235	1.00	33.00
3975	C	PHE	B	864	42.796	16.097	102.134	1.00	39.31
3976	O	PHE	B	864	41.644	15.610	102.340	1.00	42.22

FIGURE 3CA

A	B	C	D	E	F	G	H	I	J
3977	N	ALA	B	865	43.535	16.632	103.081	1.00	38.65
3978	CA	ALA	B	865	43.021	16.590	104.387	1.00	41.81
3979	CB	ALA	B	865	44.179	16.905	105.512	1.00	42.20
3980	C	ALA	B	865	41.864	17.534	104.488	1.00	41.60
3981	O	ALA	B	865	40.936	17.255	105.218	1.00	41.67
3982	N	ASP	B	866	41.882	18.696	103.846	1.00	42.39
3983	CA	ASP	B	866	40.590	19.411	104.022	1.00	44.31
3984	CB	ASP	B	866	40.540	20.833	103.439	1.00	44.90
3985	CG	ASP	B	866	41.770	21.613	103.675	1.00	50.05
3986	OD1	ASP	B	866	42.078	21.770	104.884	1.00	55.78
3987	OD2	ASP	B	866	42.487	22.082	102.707	1.00	49.26
3988	C	ASP	B	866	39.398	18.607	103.357	1.00	43.11
3989	O	ASP	B	866	38.289	18.577	103.908	1.00	40.88
3990	N	ILE	B	867	39.687	17.950	102.214	1.00	41.48
3991	CA	ILE	B	867	38.644	17.260	101.454	1.00	39.52
3992	CB	ILE	B	867	39.235	16.640	100.175	1.00	39.26
3993	CG1	ILE	B	867	39.557	17.782	99.199	1.00	37.38
3994	CD1	ILE	B	867	40.457	17.388	97.911	1.00	34.65
3995	CG2	ILE	B	867	38.265	15.618	99.527	1.00	30.26
3996	C	ILE	B	867	38.010	16.203	102.272	1.00	39.36
3997	O	ILE	B	867	36.787	16.055	102.304	1.00	37.24
3998	N	VAL	B	868	38.841	15.458	102.980	1.00	40.82
3999	CA	VAL	B	868	38.200	14.447	103.809	1.00	40.27
4000	CB	VAL	B	868	39.269	13.491	104.586	1.00	43.83
4001	CG1	VAL	B	868	38.560	12.555	105.520	1.00	38.82
4002	CG2	VAL	B	868	40.125	12.770	103.646	1.00	39.45
4003	C	VAL	B	868	37.345	15.129	104.808	1.00	40.69
4004	O	VAL	B	868	36.193	14.723	105.003	1.00	41.29
4005	N	SER	B	869	37.826	16.169	105.485	1.00	41.17
4006	CA	SER	B	869	36.879	16.666	106.516	1.00	44.54
4007	CB	SER	B	869	37.479	17.651	107.541	1.00	46.64
4008	OG	SER	B	869	38.536	18.378	106.941	1.00	50.61
4009	C	SER	B	869	35.713	17.290	105.912	1.00	44.10
4010	O	SER	B	869	34.559	17.140	106.449	1.00	45.09
4011	N	ILE	B	870	35.941	17.977	104.771	1.00	43.54
4012	CA	ILE	B	870	34.744	18.495	104.139	1.00	42.08
4013	CB	ILE	B	870	34.755	19.950	103.300	1.00	43.22
4014	CG1	ILE	B	870	33.586	19.999	102.312	1.00	41.61
4015	CD1	ILE	B	870	33.949	19.365	101.176	1.00	41.32
4016	CG2	ILE	B	870	36.033	20.464	102.635	1.00	40.07
4017	C	ILE	B	870	33.864	17.382	103.682	1.00	41.89
4018	O	ILE	B	870	32.658	17.458	103.793	1.00	41.51
4019	N	LEU	B	871	34.404	16.281	103.192	1.00	42.27
4020	CA	LEU	B	871	33.374	15.249	102.861	1.00	42.82
4021	CB	LEU	B	871	33.923	14.113	101.973	1.00	40.18
4022	CG	LEU	B	871	34.172	14.656	100.580	1.00	43.50
4023	CD1	LEU	B	871	34.974	13.645	99.846	1.00	42.97
4024	CD2	LEU	B	871	32.952	15.032	99.820	1.00	30.76
4025	C	LEU	B	871	32.699	14.672	104.115	1.00	41.38
4026	O	LEU	B	871	31.528	14.182	104.128	1.00	43.91
4027	N	ASP	B	872	33.394	14.658	105.207	1.00	41.15
4028	CA	ASP	B	872	32.653	14.052	106.384	1.00	41.49

FIGURE 3CB

A	B	C	D	E	F	G	H	I	J
4029	CB	ASP	B	872	33.673	13.713	107.437	1.00	39.80
4030	CG	ASP	B	872	34.462	12.401	107.107	1.00	45.40
4031	OD1	ASP	B	872	33.894	11.494	106.424	1.00	51.78
4032	OD2	ASP	B	872	35.617	12.127	107.556	1.00	52.74
4033	C	ASP	B	872	31.402	14.875	106.910	1.00	43.24
4034	O	ASP	B	872	30.268	14.269	107.347	1.00	42.17
4035	N	LYS	B	873	31.557	16.226	106.813	1.00	42.48
4036	CA	LYS	B	873	30.499	17.147	107.252	1.00	45.45
4037	CB	LYS	B	873	30.925	18.620	107.369	1.00	46.52
4038	CG	LYS	B	873	32.038	18.846	108.362	1.00	52.07
4039	CD	LYS	B	873	32.946	20.036	107.986	1.00	60.03
4040	CE	LYS	B	873	33.740	20.457	109.190	1.00	66.29
4041	NZ	LYS	B	873	34.221	19.164	109.838	1.00	72.68
4042	C	LYS	B	873	29.324	17.049	106.377	1.00	47.08
4043	O	LYS	B	873	28.196	17.131	106.833	1.00	48.85
4044	N	LEU	B	874	29.503	16.815	105.094	1.00	46.56
4045	CA	LEU	B	874	28.235	16.640	104.425	1.00	45.19
4046	CB	LEU	B	874	28.375	16.817	102.875	1.00	46.34
4047	CG	LEU	B	874	29.232	18.022	102.434	1.00	48.30
4048	CD1	LEU	B	874	29.940	17.832	101.164	1.00	45.32
4049	CD2	LEU	B	874	28.475	19.386	102.439	1.00	51.85
4050	C	LEU	B	874	27.677	15.295	104.767	1.00	46.11
4051	O	LEU	B	874	26.433	15.095	104.797	1.00	42.90
4052	N	ILE	B	875	28.568	14.289	104.846	1.00	48.45
4053	CA	ILE	B	875	28.076	12.933	105.024	1.00	49.62
4054	CB	ILE	B	875	29.276	11.927	105.013	1.00	50.00
4055	CG1	ILE	B	875	29.557	11.427	103.630	1.00	49.38
4056	CD1	ILE	B	875	30.973	10.853	103.455	1.00	50.85
4057	CG2	ILE	B	875	29.010	10.708	105.957	1.00	48.28
4058	C	ILE	B	875	27.452	13.055	106.397	1.00	52.40
4059	O	ILE	B	875	26.435	12.478	106.683	1.00	52.10
4060	N	ARG	B	876	28.026	13.876	107.267	1.00	55.97
4061	CA	ARG	B	876	27.371	13.957	108.590	1.00	59.43
4062	CB	ARG	B	876	28.395	14.347	109.636	1.00	60.00
4063	CG	ARG	B	876	28.796	13.204	110.592	1.00	61.19
4064	CD	ARG	B	876	29.309	11.888	110.037	1.00	67.05
4065	NE	ARG	B	876	30.770	11.823	110.044	1.00	76.99
4066	CZ	ARG	B	876	31.568	11.708	111.116	1.00	79.95
4067	NH1	ARG	B	876	32.887	11.691	110.939	1.00	81.01
4068	NH2	ARG	B	876	31.067	11.609	112.335	1.00	79.88
4069	C	ARG	B	876	26.149	14.868	108.667	1.00	61.31
4070	O	ARG	B	876	25.336	14.774	109.576	1.00	63.40
4071	N	ALA	B	877	25.990	15.796	107.728	1.00	61.95
4072	CA	ALA	B	877	24.782	16.639	107.724	1.00	60.39
4073	CB	ALA	B	877	25.142	18.071	108.099	1.00	61.56
4074	C	ALA	B	877	24.104	16.542	106.334	1.00	60.30
4075	O	ALA	B	877	24.050	17.450	105.548	1.00	59.22
4076	N	PRO	B	878	23.522	15.391	106.110	1.00	60.43
4077	CA	PRO	B	878	23.006	14.995	104.833	1.00	60.78
4078	CB	PRO	B	878	22.159	13.749	105.162	1.00	60.53
4079	CG	PRO	B	878	22.572	13.309	106.396	1.00	59.55
4080	CD	PRO	B	878	23.223	14.408	107.159	1.00	61.36

FIGURE 3CC

A	B	C	D	E	F	G	H	I	J
4081	C	PRO	B	878	22.093	16.025	104.243	1.00	60.68
4082	O	PRO	B	878	21.843	15.907	103.015	1.00	60.12
4083	N	ASP	B	879	21.492	16.871	105.081	1.00	59.38
4084	CA	ASP	B	879	20.644	17.925	104.532	1.00	59.16
4085	CB	ASP	B	879	19.959	18.741	105.618	1.00	59.04
4086	CG	ASP	B	879	18.427	18.579	105.571	1.00	66.19
4087	OD1	ASP	B	879	17.726	19.586	105.290	1.00	72.48
4088	OD2	ASP	B	879	17.829	17.463	105.707	1.00	71.81
4089	C	ASP	B	879	21.462	18.826	103.603	1.00	57.43
4090	O	ASP	B	879	20.981	19.301	102.590	1.00	57.64
4091	N	SER	B	880	22.716	19.032	103.975	1.00	56.33
4092	CA	SER	B	880	23.644	19.836	103.267	1.00	54.79
4093	CB	SER	B	880	24.929	19.797	104.005	1.00	55.24
4094	OG	SER	B	880	25.622	18.605	103.690	1.00	55.50
4095	C	SER	B	880	23.879	19.301	101.868	1.00	54.99
4096	O	SER	B	880	24.507	19.979	101.077	1.00	53.72
4097	N	LEU	B	881	23.348	18.113	101.566	1.00	55.55
4098	CA	LEU	B	881	23.478	17.516	100.243	1.00	56.64
4099	CB	LEU	B	881	23.957	16.066	100.370	1.00	55.16
4100	CG	LEU	B	881	25.385	16.073	100.877	1.00	47.41
4101	CD1	LEU	B	881	25.879	14.711	101.097	1.00	44.25
4102	CD2	LEU	B	881	26.234	16.645	99.827	1.00	38.61
4103	C	LEU	B	881	22.260	17.570	99.338	1.00	60.26
4104	O	LEU	B	881	22.311	17.141	98.189	1.00	61.01
4105	N	ALA	B	882	21.141	18.068	99.839	1.00	64.54
4106	CA	ALA	B	882	19.923	18.077	99.007	1.00	66.81
4107	CB	ALA	B	882	18.619	18.004	99.875	1.00	66.76
4108	C	ALA	B	882	19.875	19.245	98.028	1.00	68.16
4109	O	ALA	B	882	19.531	19.064	96.866	1.00	69.24
4110	N	ALA	B	883	20.126	20.446	98.515	1.00	68.60
4111	CA	ALA	B	883	20.325	21.591	97.630	1.00	69.28
4112	CB	ALA	B	883	20.372	22.901	98.461	1.00	69.49
4113	C	ALA	B	883	21.685	21.361	96.886	1.00	69.14
4114	O	ALA	B	883	21.818	21.511	95.652	1.00	68.44
4146	O1A	ATP	B	1001	46.712	-3.440	86.953	1.00	89.49
4147	PA	ATP	B	1001	45.850	-2.328	86.523	1.00	84.33
4148	O2A	ATP	B	1001	45.971	-1.113	87.512	1.00	78.95
4149	O3A	ATP	B	1001	46.316	-2.240	84.993	1.00	89.69
4150	PB	ATP	B	1001	47.730	-1.566	84.575	1.00	98.93
4151	O1B	ATP	B	1001	48.070	-2.089	83.230	1.00	99.05
4152	O2B	ATP	B	1001	48.948	-1.908	85.490	1.00	95.56
4153	O3B	ATP	B	1001	47.340	0.025	84.490	1.00	97.61
4154	PG	ATP	B	1001	45.810	0.614	84.344	1.00	101.51
4155	O3G	ATP	B	1001	45.916	2.031	83.685	1.00	97.15
4156	O2G	ATP	B	1001	45.159	0.728	85.746	1.00	95.81
4157	O1G	ATP	B	1001	44.985	-0.323	83.475	1.00	99.53
4158	O5*	ATP	B	1001	44.345	-2.779	86.226	1.00	81.43
4159	C5*	ATP	B	1001	44.056	-3.806	85.310	1.00	76.05
4160	C4*	ATP	B	1001	42.586	-4.122	85.531	1.00	72.65
4161	O4*	ATP	B	1001	42.294	-5.396	86.149	1.00	66.71
4162	C1*	ATP	B	1001	41.362	-5.132	87.170	1.00	60.60
4163	C2*	ATP	B	1001	40.769	-3.740	86.836	1.00	62.85

FIGURE 3CD

A	B	C	D	E	F	G	H	I	J
4164	O2*	ATP	B	1001	40.111	-3.694	85.576	1.00	60.83
4165	C3*	ATP	B	1001	42.005	-3.004	86.424	1.00	67.86
4166	O3*	ATP	B	1001	41.724	-1.884	85.612	1.00	68.16
4167	N9	ATP	B	1001	42.167	-5.202	88.434	1.00	53.63
4168	C8	ATP	B	1001	43.500	-4.813	88.655	1.00	53.17
4169	N7	ATP	B	1001	43.833	-5.108	89.970	1.00	50.95
4170	C5	ATP	B	1001	42.701	-5.612	90.619	1.00	46.80
4171	C6	ATP	B	1001	42.436	-6.005	91.949	1.00	44.40
4172	N6	ATP	B	1001	43.185	-5.600	93.067	1.00	37.97
4173	C4	ATP	B	1001	41.684	-5.687	89.652	1.00	48.42
4174	N3	ATP	B	1001	40.432	-6.108	89.965	1.00	44.97
4175	C2	ATP	B	1001	40.181	-6.529	91.253	1.00	46.46
4176	N1	ATP	B	1001	41.180	-6.522	92.179	1.00	41.31